

PROJECT REPORT

NCERT

A Study of
Learning Environment
of
Achieving Classes
of
Rajasthan Schools

1982

BY
DR. RAM PAL SINGH

M.A., B. Com., M. Ed., Ph.D.
JALAL INSTITUTE OF EDUCATION, AMER
(UNIVERSITY OF RAJASTHAN)

PREFACE

The part that education plays for personal and social happiness and accomplishment, has been widely recognised by the educationists, sociologists and politicians nowadays. Education is also essential for economic, technical and industrial development of a country and vice-versa for national prosperity. It generates necessary social and professional skills. For these reasons, education in the modern time has become a central issue for the developed countries. The developing countries can never carry on efficiently without proper educational facilities and administration. That is why, there is a spurt in the demand for education through out the world; and the developed countries are investing huge amount of revenue funds in education, but the developing countries, like India, can not invest adequately, as they have also to meet the growing needs of health, education, agriculture, transportation and defence.

purposes. For these countries, therefore, it becomes essential to fully utilize the every amount of money spent on education and to produce useful and creative students. This is only possible if the cases of wastage and stagnation and of delinquency are minimized to its lowest level. Such cases are costly for developed countries, but they are still costlier for the developing countries, as they have limited funds at their disposal and the state exchequer can not easily bear the losses caused by wastage, stagnation and delinquency. Therefore, efforts to unveil and understand the factors that contribute to these evils are not simply academic exercises, but they have their practical bearings, as they can make it possible to fully utilize the limited resources of the country in a more fruitful direction and to bring out citizens of balanced personality. Hence, a scientific analysis of the factors that contribute to wastage and stagnation and to delinquency is required.

In western countries, particularly in the U.S.A., numerous studies dealing with the factors that contribute to academic achievement are available. In these studies, the personality and social factors have generally been emphasized. But these factors fail to explain and answer the unasked questions. It is now asserted that there are some other factors that also are responsible for academic performance and these factors have not so far been studied. Hence, the present day researchers have directed

their attention to areas the study of non-personality and non-social factors that are responsible for academic achievement. The present investigation has been designed to study the contributing power of non-personality and non-social factors; i.e. the socio-emotional climate of the classroom, generated by the teacher by his unique classroom behaviour.

In India, however, not many investigations into this very important contributor to academic performance have been conducted. Whatever work in this field is conducted, particularly by the M. C. M. P. S. University, Mysore, under the excellent guidance of Dr. K. R. S. is based on Flanders Ten Category System. Virtually no work in India is visible based on the system other than Flanders'. Deviating from Flanders' System of observing and analysing teachers' ongoing classroom behaviour, an attempt in this study is made to investigate the socio-emotional climate of the classroom as perceived by the pupils in relation to their behaviour and achievement.

At present, in India, there is a paucity of research materials to study the types of classroom climate and its impact on pupils' classroom behaviour. This is still a virgin field where such work can be undertaken in this country. The investigator, motivated by the influence of teacher's behaviour on pupils' behaviour, has tried to touch only few aspects of the vast unexplored area of knowledge and has tried

to find out some dimensions of classroom teacher-behaviour vis-à-vis classroom climate and their relationship with pupil behaviour and achievement.

It is the feeling of the investigator that there is an urgent need for such types of studies because these can be used as guidelines for developing future plans and programmes for imparting edu. or training in this regard to the teachers - both in-service and pre-service. A successful exploration of dimensions that contribute towards pupil desirable behavioural outcomes can bring glittering moments in the life of the child, the society and the nation. With this end in view, the investigator has put on record his humble attempt at exploring this highly interesting and so long neglected field of study.

The present piece of work owes solely to the N.C.S.B. which sanctioned a benevolent grant of \$14,500.00 to carry the project to its completion. Great appreciation is acknowledged to the chairman and member Secretary of the N.C.S.B. ^{for} their sympathetic financial assistance.

The project was to complete by the end of September 1981 as the time sanction for the project was of complete twenty four month, but due to some unavoidable circumstances, it could not be submitted in time. Computation work, which was done free of charge at the Computer-Centre, University of Illinois, U.S.A., was also interrupted time, hence the delay. I personally feel sorry for this delay.

Mr. Herbert J. Mulberg, Professor of Education, University of Illinois, arranged all the computation work, statistical analysis and their interpretations free of charge. Great indebtedness is expressed to him for this.


I also express my sincere gratitude to Mr. John Odhall, College of Education, Lagos, Nigeria, for supplying me a good amount of literature related to the present problem.

Special appreciation is acknowledged to the principals of all the Higher Secondary Schools from which data for the present study have been collected, for their fullest and whole-hearted cooperation extended by them to the researcher.

Acknowledgment is also made to many other persons who helped me directly or indirectly in completing the project report.

AMIN

The 1st May, 1962.


(RAJENDRA SINGH)

INTRODUCTION

The present project is a postmortem study of factor, classroom learning. It is a common experience with us that for some students schooling is a happy experience. They enjoy their school career. They look forward for their school career classes. With the result their scholastic attainment is very remarkable. But at the same time we have certain school goers who are at odds with school. The school place is some sort of pandemonium for them. They get horrified at the very mention of the school as if they have to go to some battlefield. Consequently, their academic achievement is irritatingly low. It is this wide of difference that the present study penetrates into and undertakes to identify the factors responsible for this rich and poor show.

1. STIMULI FOR LEARNING :-

Researchers give us a number of factors that immensely influence pupil's academic success. When classified they are (i) Pupil's Characteristics ; (ii) Group Characteristics; (iii) Physical Characteristics; (iv) Environmental Characteristics and (v) Teacher's Characteristics. Which group of this triad of factors influence school learning here is still an issue unsettled. But that each of these groups has some sort of say in the affair is a fact unanimously agreed to. Coming to the first group, of all the pupil's characteristics, intelligence has, in most of the studies (Surt, 1939, Ginitien, 1939, Guller, 1941, Aston, 1949, Loeys, 1958, Kennedy, 1959), emerged as highly related to scholastic success. Its correlation with the academic achievement varies from 25 to 70. Physical maturity and the related psychomotor ability are other pupils characteristics significantly related with the pupil learning. An individual with high manual dexterity may learn more readily, especially in the areas of music, drawing, handwriting, typing, etc. (Guller, 1941, Cattell, 1943, Binet and Henry, 1893, Fishman, 1954). Similarly, students' affective variables such as interest, attitude, motives, personality integration equally contribute to the classroom learning. (Stone, 1952, Blass, 1952, Loeys 1958, Freud, 1946,

Heiny 1940, Lecky, 1951, Kimball, 1953, Moon, 1956, Mishkin, 1957, Eysenck, 1957, Owen, 1957, Nannan, 1958, Spockover, 1959, Gough, 1961, Savage, 1962, Bresser, 1965, Chatripper, 1967) Age (Keller 1932, Schupe and Havdingeret 1952, Kasmeler, Feldhausen and Check 1959), Sex (Terman and Tyler 1954, Berry, Bacon and Child, 1957) and biographic info and socio-economic status (Clancy and Edler, 1954, Mishkin, 1957, Brown and Tashan, 1957) are also among the learner's characteristics that etc. though less directly, related with the learning efficiency of the pupil.

The other class is the group - characteristics. In this group include factors like the size of the group, the structure of the group, the attitude of the groupmembers and the leadership style (Thibout, 1959, Kelley, 1951, Seand and Backman, 1964). The third group consists of the physical forces like space, equipment, supplies, buildings, light, air and the like. Findings in this area are still inconclusive though, theoretically, some relationship appears to exist between the two. In case of non-availability of sufficient relevant equipment proper learning is said to be undesirable. * In a class of thirty students if there are only twenty typewriters, possibilities of efficient learning are much less than in a situation in which thirty typewriters were available.

* The same is true of space, supplies and furniture, etc. (Smith 1939). Home, neighbourhood, cultural influence, administrative organisation of school, curriculum requirements and community expectations are environmental factors, that also are said to affect the learning efficiency (Smith, 1937, Singh, 1979).

Teacher characteristics is one more class of factors affecting pupil's learning (Shanon, 1940, Schenck, 1951, Barr, 1953, Hoyt, 1955). The studies of the above named investigators have shown that the learning of a pupil is considerably enhanced if the teacher is intelligent, well prepared in the subject matter, well educated and himself a high-achiever. Teacher's effective characteristics also are said to be related, though comparatively to a lesser extent, to the pupil's classroom learning. However, Teacher's age (Milan, 1933, Wehler, 1942, Key, 1951, Ryans, 1959), sex (Lahon, 1954, Tyler, 1956, Mullins, 1957, and social class background (Hoon, 1954) have only a very minimal bearing on the pupil's learning efficiency.

But still this factor, family fails to explain the 'total variance of school learning'. Even the combination of these various factors is incapable to explain the total variance. It seems, there are some other factors also, not studied so far, that affect academic achievement.

One such factor which is, at present, as a factor of school learning, gaining currency, is the interaction between the teacher and the pupil and among the pupils themselves in the classroom. And it is only due to this that the recent past years have seen a very good number of researches on patterns of the classroom interaction and the classroom climate as related to school learning. A peep into the findings reveals a very positive relationship between the two. The investigations of Anderson (1939), Levin, Lipitt and White (1939), Mithell (1949), Cantor (1951), Farkins (1951), and Brown (1968) abroad and of the C. P. S. E. M. N. University of Baroda have to their credit a significant achievement in this area of education. All these studies deal with the various aspects of interaction patterns. Some devote themselves to leadership style, some to communication and some to teacher - pupil and pupil-pupil behaviour in general which gives birth to a unique classroom climate which ultimately in turn influences pupil's learning efficiency. These studies deal mainly with the help of Flanders Ten Category system. But Flanders Ten category system has its own drawbacks. In this system an observer has to go to the class. The presence of an outside person alters the natural climate of the classroom climate. Hence the recent researchers working in the field of classroom climate, have diverted their studies from observation techniques to pupil perception.

In India, only two or three research works which use pupil perception as a measure of classroom climate, are available. The present piece of work is another attempt in this line.

Secondly no work dealing with the various factors of high and low achievement of Rajasthan's Higher Secondary School works is traceable, till now. With this knowledge of backgrounds the present problem has been taken up and named as :-

**A STUDY OF FACTORS
OF LEARNING ENVIRONMENT
OF ACHIEVEMENT
OF HIGHER SECONDARY SCHOOL**

2. ENVIRONMENTAL LEARNING ENVIRONMENT

This learning environment is exclusive of the environmental factors previously mentioned. The phrase involves only the Socio-emotional climate within the classroom in the school. Man is never an island in himself. For a complete and cultural life to live he has to depend on his fellow-beings. And the students are no exceptions to this rule. For a successful school career they have to create and maintain whole some teacher-pupil relations on the one hand and with one another on the other. So is the case with the teacher himself. In order to enjoy a successful teaching career he must have pleasant relations with his students. This inter-relationship between the teacher

and students and among the students themselves is the creator of an unique type of classroom climate which varies from teacher to teacher and class to class. By the phrase classroom climate refers to the ways the students and the teacher relate themselves to one another and undergo certain kind of emotional experience in so doing. The whole structure of the emotionalized group relationship of this sort is technically known as the socio-emotional climate of the classroom.

A number of factors determine this socio-emotional type of the class. The main among these is the teacher's interaction with the students. During teaching the teacher sometimes intentionally, with his planned behaviour and sometimes the unplanned one, and in that case unaware of his behaviour and its effect on the pupil's learning process, influences the pupil and his learning. Generally, the teacher is unaware of the dynamics of the pupil's perception of his behaviour and as the extent of the hold the enjoys over his class. And this suicidally curbs his professional efficiency and amply checks him from becoming a dashing teacher. Therefore, there is an imminent need of the knowledge of the mechanism of the classroom climate for him. Such a knowledge will help him have the requisite changes in his

or his classroom behaviour. Such a knowledge is important, nay, very important, for the teacher educators, for they alone prepare teachers for the society and the nation.

Through the knowledge of learning environment they can develop skill in the pupil-teachers to manoeuvre the class influence differently in different classroom situations and this creates different kinds of socio-emotional climate so as to establish more appropriate pupil learning in the class. The studies of Perkins (1951), Koshovitz (1957), Storkie (1963) Frost (1965), John (1966), and Carr (1967) all imply emphasis the need to teach the future teacher to accept students ideas and behaviour and reduce the cases of teacher - rejection of the pupil's learning in behaviour and enable the teacher to create a wholesome socio-emotional climate in the class ultimately resulting in an efficient classroom learning process. Rogers (1959) and Ethel (1967) advocate a sympathetic treatment of the unapproved student because he feels himself as a foreigner in his own school situations and carry 'Free floating anxiety' which makes him lose his initiative and stop his efforts to master the subject matters. That is why he is said to need a learning situation which affords him the activity and reinforcement necessary for

his psychic satisfaction. They further advise to teach the pupil-teacher to view the learner's problems in his frame of reference. For this will make himself confident and also realistic and receptive to new ideas about himself and the world around him.

Chusky (1968) suggests one more thing. And it is the student's involvement in various classroom activities. For this will make him learn the subject matter more easily than otherwise. This is because knowledge in that case becomes intrinsically meaningful for him. It is in this way that the future teacher, when he actually takes up the profession, can create a healthy climate of warmth and fairness. That such a wholesome socio-emotional tone of the class is a potent facilitator of the school learning, is also proved by the research work of Perkins (1961), Ginner (1966), Solomon, Rosenberg, and Bunde (1964), Milberg and Anderson (1968), and Douglas Hall (1970). Kenneth and Miller (1968) have even shown that the classroom climate affects not only pupil's academic but even the non-academic behaviour. Their findings are supported also by Ginner's investigations on sociology of education, which has recently emerged as a dignified branch of knowledge in the field of education abounds in examples of this sort of relationship.

3. STUDENT PERCEPTION OF TEACHERS' ROLE

The main constituent factor of this class room

climate is the pupil-perception of the teacher's classroom behaviour which goes a long way in effecting the pupil learning. The characteristics which constitute this constituent factor can be classed as (i) professional and (ii) humanistic. In the professional side stand teacher's professional efficiency consisting in his teaching skill, clarity, task orientation, imagination and sensitivity in organising learning activities and manipulating learning variables. In the humanistic side stand his fairness, impartiality, patience, cheerfulness and sympathetic treatment of the pupil. The pupil approves only of the teacher who is helpful, kind and considerate of his feelings and is interested in him. He disapproves of the teachers showing unappreciation, favouritism, partiality, irritability, fussiness, fussiness, brittleness of temper or any sort of intolerance (Lowe, 1955). This has been the opinion also of Dr. Radhakrishnan. Sears (1955) also has presented some evidence which suggests that pupil achievement is more creative when teacher is warm and encouraging.

But there are also studies that suggest that the warm and encouraging attitude of teacher influences learning more of an elementary school pupil who seeks in teacher apparent acceptance and a source of acceptance and approval indicative of derived status. Than that of a secondary or a university student for

where affiliative drive constitutes a less salient motivation for learning than the growing need for self-enhancement and earned status. For such pupil liking of a teacher is not related to the teacher's degree of warmth or his score on the Minnesota Teacher Attitude Inventory but to his being imaginative, stimulating and enthusiastic about his subject. (Dellie, Iran and Gage, 1955). Under this kind of stimulation, the pupil behavior is said to be more productive (Hyman, 1961) and his comprehensive gains are said to be greater (Solomon, Rosenberg, and Lindell, 1964). Pupils within a given classroom, says Cohen, who judge the teacher as orderly, and systematic in his classroom management and arrangement of learning activities, report greater accomplishment of work than those of their classmates who make less favorable judgements of the teacher in this regard (Cohen, 1961).

4. NEED FOR THE ARIAL

Thus the survey of the investigations into the relationship between the classroom climate and the academic performance show that the evidence so far accumulated, is inadequate. We have different findings here. According to Hyman and Dellie, Iran and Gage the emotional support on the part of the teacher is effective in case of the students of elementary schools, while Sears suggests that the pupil's achievement is,

irrespective of his grade level, more creative when the teacher is more and understanding. It is this difference in the findings of the research on learning that calls for future research on learning in this area. And so the need for the present study.

There is another reason also for such an undertaking. Most of the work in this area has been done in the countries abroad, particularly, in the U.S.A., and it may be assumed that the research findings of these countries may work in the case of other countries also. But the fact that the research seldom takes things for granted necessitates the replication of the present study. This is because 'Cultural influences play an important part in determining the pattern of the classroom behaviour of the teacher and the students which ultimately results in the different types of climate and their impact on the pupil - learning.

No doubt, the Centre for Advanced study, M.S. University, Baroda, is carrying out ample research work in this field in India. But in these researches mostly indirect techniques of studying the teacher-classroom behaviour are employed and emphasised, when the present investigation proceeds through the direct technique, that is, the pupil's own perception of the

teacher's classroom behaviour. Is one justification for the study in this line. For the above studies are not the studies of the socio-emotional climate of the classroom directly, but classroom climate has only to be perceived in these studies. Here the classroom climate is defined in terms of the teacher behaviour as observed by an outsider and not by the pupil himself. It is therefore, difficult to say how valid the observation of this out side as an index of a real socio-emotional tone of the class is. It is just possible that the observer feels about the teacher's classroom-behaviour in one way and the pupil in a quite different way. What is actually important here is not the actual classroom behaviour of the teacher but rather how his pupils perceive it. For it is the pupil who has to learn and react and not the observer.

6. IMPORTANCE OF THE EMBLEM

The sort of life we should lead has been given to us in the preamble to our draft Constitution that

"WE THE PEOPLE OF INDIA, having solemnly resolved to constitute India into a SOVEREIGN DEMOCRATIC REPUBLIC, AND to secure to all the its citizens:

JUSTICE, social economic, and political ;

LIBERTY of thought, expression, belief, faith and worship ;

EQUALITY of status and opportunity; and to promote

among them all: **PLURALITY** - ensuring the dignity of the individual and the unity of the Nation as **HUMANITY** **ALERT, HONEST, AND TRUE TO OURSELVES THE CONSTITUTION.**

Now if anything can come to our help here to lead this dignified humanly life it is education and education alone which bestows upon us, on the one hand, the qualities of heart and, on the other, the qualities of head. Aristotle's observation is very remarkable here. On one occasion, it is said, Aristotle was asked how much educated men were superior to those uneducated; and he is said to have replied that "as much as the living are to the dead." This life-giving effect of education on the human life was perhaps felt even by our committee and commissions appointed for the post-mortem examination of the educational practices of the nation who perhaps, believing with us quote the said thinker once again, Aristotle that "The very spring and root of honesty and virtues lie in the felicity of lighting on good education," and that it taught people to 'do things without being commanded (or) from fear of the law,' concluded that education constitutes an essential base for social, economic and industrial developments. For the Radhakrishnan Commission our universities have to provide leadership in politics and administration the professions, industry and commerce..... They must enable the country to attain, in the shortest

possible time, freedom from want, disease and ignorance, by application and development of scientific and technological knowledge.' This has been the sole belief even of the Socialier Commission for which "educational system must make its contribution to the development of habits, attitudes and qualities of character, which will enable its citizens to bear worthily the responsibilities of democratic citizen ship Secondly,..... improve productive efficiency to increase the national wealth and thereby raise appreciably the standard of living of the people. Even the Katheri Commission shares this belief with its two predecessor commissions when it says that ' The destiny of India is now being shaped in her classrooms..... on the quality and number of persons coming out of our schools and colleges will depend our success in the great enterprise of national reconstruction whose principal objective is to raise the standard of living of our people.' This relationship between education and the national development was realised even by Plato when in his Republic, he asserted that the philosophers alone should be the rulers. But even Plato was not first in this recognition, for we have this thing even in our Upanishads which say that we should have, in order to have rulers like Janaka and Krishna, who were, among their likes, the very source of education. Even the lesser thinkers have endorsed this conviction. For Aristotle, education is an effective tool in bringing

about the required transformation of society. John Stuart Mill wrote, 'A thing not yet well understood and recognised is the economic value of the general diffusion of intelligence among the people. 'Even the classical economists, from Adam Smith to Alfred Marshall increasingly recognised the relationship between education and national development. The latter, therefore, suggested a big expenditure on education.

A large number of studies which have lately been made also suggest this sort of contribution of education to the national development both in terms of growth and change. They have conclusively shown that the major factor in growth is not capital, physical resources and labour input but the residual factors like organisation, inventiveness and education. Had natural resources been the only factor in development, 'the Scandinavian countries or Switzerland could never have been among the richest countries in the world, for they are poor in natural resources and the oil rich Arab lands and mineral laden Congo and Brazil would have been the richest. The world of difference between the two shows that there is some key variable which links the resources and the per capita income of the country. And this key variable is education. Compared to Mexico and Brazil (rich in natural resources) Denmark and Switzerland (poor in natural resources) are, because of their effective system of education, high in per capita

income. Japan, badly lacking in natural resources, geographically a small country with very dense population, has the per capita income well above the per capita income of many other Asian nations that are comparatively much richer in natural resources. Here too the educational factor has been a boon. Taking education as a single item in terms of costs and returns, * The U.S. Bureau of Census calculated that in 1949 a man with elementary education earned on an average \$112, a man with high school education \$519, and a college graduate earned \$960.* The Soviet scholar Prof. Kojanov states that when universal 14-years education was introduced in U.S.S.R., it was calculated that the benefit of the economy would be 43 times greater than the sum expended on it. Even in Germany and France it was the advance in the level of technical education of the peasantry which made the economic growth of these countries possible.

Turning now to India her food grains production in 1954-55 was of the order of 89 million tonnes only which has fortunately, by now boosted up to the record production of 131 million tonnes, the principal goal of our economic development. Though during the intervening years there have been some fluctuation in food grains production in the country, yet the achievements of the food front have been outstanding and unprecedented since 1950. And this growth and self-sufficiency in

the Indian agriculture, the principal goal of our economic development, has been possible only due to the technological innovations of the Indian education.

So if there is any philosopher's stone it is education and education only and as it needs, in order to be realized, big amounts of money to be spent on. But being a developing country our India can hardly invest the relevant huge funds in it. And as the need to make the best use of the funds, of whatever order they may be, spent on it. But this we can never do unless we well handle the ugly issue of 'wastage and stagnation'. In the year 1972 only 43 percent of the total number of candidates who took the High Secondary Examination of the Board of Secondary Education, Rajasthan could pass the examination. That is, 57 percent failed. The pass percentage of other states also is said to be round about the same. The results at other levels of education are still worse. And this is something very critical for our country. Some thing needs to be done immediately in this regard. We must understand the factors affecting both favourably and adversely the academic and achievements of our student. And as the immense importance of the present project. For with its findings, if positive it will explain one more factor affecting the scholarship of our student and will help us regenerate the otherwise less effective classroom climate to help the school population achieve its maximum.

The findings will also help in doing away with the problem of under achievement. Shotnagar (1963) in his unpublished study found that sixteen percent of the bright students were under achievers. This is a great loss to a developing nation whose wealth consists only in its population. Here its people are mentally sound more powerful and prosperous it is. By helping the school population to realise its utmost, the study will help the school to do it justice also. And this will also be in keeping with the spirit of democracy.

The report may articulate even the teacher to understand the socio-emotional tone of the classroom and also the implications of his own classroom behaviour leading him thus to change it in a more positive fashion.

6. WHY IS IT THE CHOICE OF STUDENT PERCEPTION

Elsewhere (in the student perception section) it has been stated why this way of knowing the classroom climate through the student perception of the teachers behaviour has been chosen. The reason given there is that it is not the teacher's actual classroom behaviour that affects the student's learning but rather the student's own perception thereof which makes him react favourably or otherwise.

Another reason for such a choice is that the teacher observation system like those of Flanders or R.C.B. require trained observers which we do not have many.

Thirdly, these system require the observer to visit classes several times which is neither convenient nor desirable. For, on the one hand, they cause disturbance to the students and the teacher as well and, on the other, they may make the latter cautious or even over cautious which may render his teaching unnatural and so ineffective which, again, is against the interests of the student.

Hence the justification of the employment of this method of observation.

7. ~~STATEMENT OF OBJECTIVES~~

The objectives the present study has set for itself are :-

1. To study the relationship between socio-emotional climate of the classroom and the academic success of the pupil.
2. To study the relationship between the general classroom behaviour of the student and the socio-emotional tone of the classroom.
3. To identify and analyse the patterns of the classroom climate.
4. To compare the socio-emotional climates prevailing in the schools of rural and urban areas and see their effects on the school learning.
5. To compare the socio-emotional climates of the classes taught by male and female teachers in order to identify the effect of the sex on the climate.
6. To study the interrelationship between the student's

perception of the teacher's classroom behaviour and the socio-emotional tone of the class :

- 7 To examine whether high and low achieving classes have different socio-emotional climates; and lastly,
- 8 To develop a socio-metric test to measure the pupil's behaviour development as perceived by his class-fellows.

6. HYPOTHESES

The hypotheses to be verified in the study are that :-

- 1 Sex has no bearing on the kind of the classroom climate.

This hypothesis will be verified by comparative study of the socio-emotional climates of the classes taught by male teachers and female teachers.

- 2 The hostile socio-emotional climate the pupil's academic achievement, may be a student of an urban school or of a rural school.

This hypothesis will be tested by collecting the data from schools of both the areas and comparing their results.

- 3 The socio-emotional climate of the classes in the rural area schools is more healthier and so more conducive to learning than the one prevailing in the urban area schools' classrooms.

Here achievements of schools of both the areas be compared in relation with their classroom - climate.

4. There is no difference between the classroom climate of the Government and the private schools.

This hypothesis will be tested by interpreting the data collected from the schools of both the types.

5. The academic achievement of the student is immensely influenced by the classroom climate.

This hypothesis will be verified by comparing the results in relation with the classroom climates.

6. The classroom climate is closely related to pupil's behavioural development. That is, good climate generates good behaviour in the pupils and poor climate poor one.

This hypothesis will be verified by finding out the relationship between classroom climate and pupil classroom behavioural activities. If the better classroom climate results in to the display of more desirable behaviour on the part of the pupil the hypothesis will be accepted.

And once these hypotheses are proved to be true, we will have only positive results which will if properly acted, go a long way in improving the academic performance of our school scholars.

2. AIMS

Since the project studies the assessment of the pupil's academic achievement which, in turn, involves an examination of a number of factors such as

his own self-concept, his intelligence, his socio-economic status, his classroom behaviour, his parents' attitude toward his academic success, the classroom climate, etc. It employs the following different tools to collect the relevant data :-

- 1 The student informationnaire : This will furnish the investigators about the pupil's self concept.
- 2 Haward's Progressive Matrices Test; which inform the investigators about the pupil's I.Q.
- 3 Jale's Group Test of Mental Abilities : This, too, will furnish the information about the pupil's I.Q.
- 4 Socio-economic Status Scale to let the investigators know about the place and the positions the pupil enjoys in society and the school life.
- 5 Pupil classroom behaviour Schedule, : to enable the investigators to know about the pupil's behaviour with regard to the classroom climate on the one hand and the academic performance on the other.
- 6 Parents' Questionnaire to know the parents' attitude toward the pupil's academic success; and the
- 7 Learning Environment Inventory to enable the investigator to know about the socio-emotional tone of the class.
- 8 The following section furnishes relevant account of these various tools.

1. THE STUDENT INFORMATIONNAIRE :-

"There is nothing impossible for a man"

one who is in the realm of high-level achievement. And if this becomes the self-concept also of our student nothing can prevent him from enjoying a brilliant school career. The unfortunate gap between the academic attainments of the high and the low achievers is clearly due to their high and low self-concepts. To the need to measure the self-concept of the high and the low achieving pupils, for this the investigators have employed a five-point rating scale developed by Lysenghove. The continuum of the scale has five rating points: Always, More Often, Generally, Some times, and Never. These points have been assigned as 5, 4, 3, 2 and 1 respectively. The pupil has to rate his feeling about him on any one of these points. The scale consists of 25 items. These items measure the personality traits of the pupil in respect of his habits, ideas, cognitive aspects and physical traits.

II. FACTORS BEHIND THE SELF-CONCEPT

Another factor equally responsible for the pupil's high, or low achievement is his intelligence. The thing comes out of nothing is a very pregnant saying of philosophy. However high the self-concept a student may have, if he does not have at the same time the matching intelligence, he will face only frustration. To the need also of a good intelligence for him. And to measure the intelligence of the pupils the investigator has made use of Raven's Progressive Matrices. The RPM is a popular test

so a detailed account of this test has not been given here.

III. JALOTA'S GROUP TEST OF MENTAL ABILITIES

Another test, to measure the pupil's intelligence, the investigator has employed Jalota's group test of mental abilities. This test had been developed and standardized by Dr. S. Jalota. The test includes the elements of (i) Vocabulary similarity (ii) Vocabulary opposites, (iii) Number series, (iv) Classification, (v) Best Answer, (vi) Inferences, and (vii) Analogies. This test is applicable to classes from VIII to XII. There are 100 items in the test. The reliability, as found in its manual is .938 and its validity ranges from .80 to .78. The validity of the test was calculated by correlating the scores on the test with school examination results. The 't' value for the pooled validity is reported to be .98.

IV. SOCIO-ECONOMIC STATUS SCALE

Socio-Economic status is another factor that affects immensely student's academic success. It goes a long way in the formation of the student's self-concept on the one hand and in getting him his school necessities and social acceptance on the other. So the need of its consideration in the project. To find out student's status of this sort the investigator has used the scale developed and standardized by Dr. Kuppamany.

particularly the first edition simply for the reason of its plainness and clarity. The scale has three dimensions - education of the parents, their occupation and their income. On the basis of the information furnished by them, each of them was given a class and these classes were taken into consideration while doing statistical calculations.

4. PUPIL CLASSICAL BEHAVIOUR SCHEDULE

Another major tool developed and used for the study is a sociometric test based on Spaulding's 'Coping Analysis Schedule'. The base schedule had twelve areas of student behaviour, but the present schedule has only ten. This modification was made for the reason of the cultural and other differences. The deleted out dimensions were not in keeping with Indian way of life.

Those that have been included in the present test are his (i) Aggressive Behaviour; (ii) Paying Rapt Attention; (iii) Manipulating and Directing others; (iv) Sharing and Helping; (v) Negative Attention Getting; (vi) Following Directions Passively; (vii) Physical Withdrawal; (viii) Responding to teachers and the peers of the class; (ix) Responding to Internal Stimuli; and finally (c) Social Interaction.

The schedule was tried on a sample of 500 subjects from the schools of Ajmer city. Reliability coefficients by Test-Retest Method were calculated for each area as well for the whole tool. The reliability coefficients worked out as follows :-

DETAILSCLASSIFIANTS

1. Total	1.77
2. Aggressive Behaviour	.83
3. Paying Rapt Attention	.67
4. Manipulating and Directing	.88
5. Sharing and Helping	.47
6. Negative Attention Getting	.64
7. Following Directions Passively	1.44
8. Physical Withdrawal	.80
9. Respecting the Teachers and the Peers	.62
10. Responding to Internal Stimuli	.55
11. Social Interaction	.66

THE LEARNING ENVIRONMENT INVENTIVE

The classroom climate is one most important factor that affects the pupil learning wholeheartedly. According to Rogers this classroom climate is the result of the teacher's readiness to accept the learner as he is and allow himself to view the learning problems in the learner's frame of reference. And if we accept this definition of the socio-emotional tone of the class, we we also should, for the teacher alone, like a pilot, controls and directs the class, then major determinant factor of the socio-emotional climate of the class is the teacher-pupil interaction or, in other

words, the learning environment prevailing in the class which has very lately gained currency as a major factor in the academic performance of the pupil. To the need to measure the classroom climate. And to do this, the investigator, after having scanned out the relevant literature and finding the present instrument as the best possible tool available for the purpose, has used the Learning Environment Inventory, developed and standardized by Dr. Anderson and Walberg. The test has been widely accepted for measuring the socio-emotional tone of the classes. The inventory measures the classroom environment as perceived by the pupil himself. This it does on 15 dimensions, the dimensions being (i) Convenience, (ii) Diversity, (iii) Formality, (iv) Speed, (v) Engagement, (vi) Friction, (vii) Goal Direction, (viii) Favouritism, (ix) Cliques, (x) Satisfaction, (xi) Disorganization, (xii) Difficulty, (xiii) Apathy, (xiv) Democratic Engagement, and (xv) Competitiveness. * The inventory contains 105 statements descriptive of typical school classes and the respondent expresses his agreement or disagreement with each statement on a fourpoint scale. A number of item polarities are reversed.*

10. STATISTICS

Man is said to be more unfathomable than an ocean. One can, it is said, to the bottom of the ocean but he can never get at man's kind. He is, leaving the God Almighty, perhaps the most complicated phenomenon of the

of the universe. This is because the human behaviour is the product of various different factors that interact with one another. Moreover, the strength of these factors differs from time to time and from person to person. This variation of influence produces an array of individual and also inter-differences. And to encompass these inter and intrapersonal variances man has invented and makes use of the various behavioural sciences; the aim in which is to abstract from this typical variability the most essential and common features of the human behaviour. For this he has to do some wrangling job, too, he has to use various statistical procedures. The present study, too, is no exception to this rule. It, too, employs a number of statistical procedures. To name these, they are :-

A. MEAN, STANDARD DEVIATION :-

This procedure will be employed to see the general trend and make a comparative study.

B. ANALYSIS OF VARIANCE :-

This will be done in order to see the significance of the mean differences.

C. CORRELATION BY PRODUCT-MOMENT METHOD :-

This will enable the investigator to find out the relationship between variables.

D. PARTIAL CORRELATION :-

This procedure will help the investigator to partial out the effects of intervening variables such as I.Q. and S.S.C.

E. REGRESSION ANALYSIS :-

Regression Analysis will be employed to calculate the predicting powers of the variables and lastly.

F. T TEST :-

T Test has been applied to test the significance of mean differences.

II. THE SAMPLE :-

The study is confined to the class XI students in each and every section of the following schools:

- i) All the 15 Higher Secondary Schools which topped the Secondary Examination results in the year 1979.
- ii) All the 15 Higher Secondary School who showed poorest result at the Secondary Examination conducted by the Board of Secondary Education, Rajasthan in the year 1979.
- iii) All the Public Schools with the administration territory of the State of Rajasthan.
- iv) All the Central Higher Secondary Schools within the administrative territory of Rajasthan State.

There are seven Central Higher Secondary Schools and two Public schools in Rajasthan. Thirty Higher Secondary schools, seven Central Schools and two Public Schools were finally chosen for the present study. The Central and Public Schools were taken as these were considered as high achieving schools.

From each section of Class XI of these schools, five top students and five better students were taken for the study. This sampling within the sampling was in order to save time and statistical calculations. The present study is confined to this very sample.

GENERAL SECOND

ANALYSIS AND INTERPRETATION OF RESULTS

Before the actual data are presented and interpreted in order to draw inference and results, it was thought more appropriate and desirable to give an account of the methodology of treatment and preliminary statistics. These are given in the sections I and II of the present chapter.

Section I

In calculation the composite variable 'Effect' from the Learning Environment Inventory (LEI) scales, the total of sub-scales Favoritism, Friction, Pathy and Cliques was subtracted from the sum total of Cohesiveness, Diversity, Democratic and Satisfaction.

'Task' the second major variable of the Classroom climate, was calculated by subtracting Misorganization from Flexibility, Speed, Goal direction and Difficulty.

The third major variable of the Classroom climate is 'Competitiveness' which was left alone because it represents the third dimension of Bal's status and 'goal' system maintenance and change. Since the two models are somewhat dissimilar on this dimension and since competitiveness represents neither its weight and not its

representation, it was left separate.

Variable 'Task' was made orthogonal to the variable 'Affect' by regressing it on Affect and taking the residual only. It is this part of task independent of Affect, which has been taken into consideration in this study. Similarly, competitiveness variable is the residual from variables task and affect. These social perceptual variables were made orthogonal to one another to conform Dale's theoretical stances that they should be independent dimensions and also to make their weights more accurately estimable in the regression by eliminating collinearity.

In this way all the fifteen dimensions of the LUI were grouped into three pools and in further discussions these three variables - 'Affect' 'Task' and 'Competitiveness' have been treated as three independent variables of the classroom climate.

SECTION II

It is worth noting initially that all the calculations have been done by the computer at the Computer Centre, University of Illinois, U.S.A. The computer has used several statistical techniques to analyse the data, collected for the purpose. The main calculations have been done by two methods (i) by taking individual scores as the unit and (ii) by taking the school means as the unit for analysis. In order to study the general nature of the data, basic data, that take individual scores as the unit of analysis, first of all

TABLE 10-2

Correlation Values between Pupil Achievement and
LBX and some other variables.

Variables	r_{12} with individual scores	r_{13} with school mean scores	r_{23} with the diffe- rence scores.
1. Obnoxiousness	.391**	.219**	.329**
2. Diversity	.145**	.111*	-.013
3. Normality	.621*	.404**	.275**
4. Speed	.320**	.416**	-.289**
5. Environment	.485**	.415**	.329**
6. Friction	-.017	.056	-.245**
7. Goal Direction	-.304**	-.475**	.176**
8. Favoritism	-.314**	.510**	-.376**
9. Cleanness	-.378**	-.380**	-.170**
10. Satisfaction	.323**	-.268**	.464**
11. Disorganization	-.302**	-.313**	-.300**
12. Difficulty	-.089	-.479**	.268**
13. Apathy	-.298**	.362**	.327**
14. Democratic	.090	.210**	.295**
15. Competitiveness	.171**	.362**	.212**
16. Category of school	-.607**	.370**	-.369**
17. Management of the school	-.303**	-.461**	-.202**
18. SES of Pupil	-.401**	.108**	-.401**
19. People Behaviour	-.514**	.597**	-.514**
20. Task	.641**	.647**	.070
21. People Like	.178**	.699**	.484**
22. Pupil Motivation	.608**	.548**	.148**
23. Parent Participation with	.608**	.623**	.026**
24. Affect	.608	.588**	.1875**
	.608		
	.601		

have been given a preliminary and non-representational statistical treatment. The results so obtained are given in table 10.1.

SECTION III

The main objective of the present study is to explore the relationship that exists between the classroom climate and students' achievement. For this purpose, simple correlation coefficients by product moment method were calculated and the degree of relationship that exist between classroom climate variables and achievements of the students were computerized. Inter relationship was also calculated with some other variables such as teachers' age, teachers' qualifications, socio-economic status of the pupils, and sex of the teacher and pupil classroom behaviour. These 'r' values were calculated in three styles : (1) Taking individual scores as the unit of calculation, (2) Taking school means as the unit of calculation and (3) by taking difference of individual scores and school means. All these 'r' values are shown in table 10.2

The table 10.2 exhibits, that classroom climate dimensions and also its three composite formulations viz., 'Task' 'Affect' and 'Competitiveness' in most of the cases have significant relationship with achievement. It is very clear from this table that there is a significant positive correlation between achievement and cohesiveness ($r = .4391$) diversity (.4146) formality (.4021), mood (.4270), environment (.4485), goal direction (.4304), satisfaction

36
TABLE 2

Correlation Values between Pupil Achievement and
LMI and some other variables.

Variables	r^2 with individual scores	r^2 with school mean scores	r^2 with the differ- ence scores.
1. Objectiveness	.391 XX	.213 XX	.329 XX
2. Diversity	.144 XX	.111 *	-.013
3. Formality	.401 *	.404 XY	.775 XY
4. Speed	.220 XX	.416 XY	-.209 XY
5. Environment	.406 XX	.415 XY	.329 XY
6. Friction	-.017	.006	-.245 XY
7. Goal direction	-.304 XX	-.475 XY	.176 XY
8. Favoritism	-.314 XX	.514 XY	-.376 XY
9. Cliquesness	-.378 XX	-.380 XY	-.170 XX
10. Satisfaction	.303 XX	-.268 XY	.464 XY
11. Mis-organization	-.502 XY	-.313 XY	-.300 XX
12. Difficulty	-.089	-.479 XY	.205 XY
13. Apathy	-.296 XX	.308 XY	.337 XY
14. Democratic	.080	.210 XY	.200 XY
15. Competitiveness	.271 XX	.302 XY	.312 XY
16. Category of school	-.607 XX	.370 XY	-.366 XY
17. Management of the school	-.402 XX	-.461 XY	-.702 XY
18. Size of Pupil	-.401 XX	.198 XY	-.401 XY
19. People behaviour	-.514 XX	.397 XY	-.514 XY
20. Task	.541 XX	.247 XY	.070
21. Pupil Size	.078 XX	.000 XY	.084 XY
22. Pupil Motivation	.000 XX	.046 XY	.046 XY
23. Parent Participation	.000 XX	.000 XY	.000 XY
24. Affect	.400	.000 XY	.073 XY

X .05
XX .01

(.323), competitiveness (.171), task (.541) and effort (.485). It thus reveals that the L1 dimensions which have positive polarity have positive significant relationship with pupil achievement. For example, if the students of a particular class know each other well (if there is cohesiveness in the class) their achievement is positively influenced ('r' value being .391 which is significant even at .01 level of significant). If the class has its class rules and traditions to guide its various academic activities (i.e. Formality - which has 'r' value of .421 - again significant even at .01 level of significant) pupil's academic achievements are positively enhanced. If the goals of the class are clear i.e. if there is goal directions, all the students will try to achieve those goals which ultimately increase their academic achievement. The variable 'goal-direction' has a positive correlation of .304 with pupil achievement. If the students are satisfied with the teaching and other activities that go on within the four - walls of the classroom (evident from the dimension 'satisfaction' which has .323 Correlation values with pupil achievement) their academic achievement has a rising trend. Similarly, if there is healthy competition among the students they try to compete academically with each other and this boosts up ($r = .171$, again significant even at .01 level of significant) pupil achievements. The two other-competitions being the third one - composite variables have also highly significant relationship with pupil academic achievement. The 'task'

variable has .561 'r' value where as 'Affect' has .485. Both of these 'r' values are found to be significant even at .01 level of significance.

The LLI has some dimensions which have negative polarity. These dimensions with negative polarity have shown negative relationship with pupil achievement, for example the dimension friction (certain students are often responsible for pretty quarrels in the classroom) has a negative 'r' value of -.017. This is not a significant value but 'Favouritism' (another dimension with negative polarity) has a significant negative 'r' value of .014. This value is significant even at .01 level. This clearly shows that if in the class certain students are given extra unwanted attention while some others are neglected, such tendencies negatively affect achievement. Disorganisation (The class is not being well organised and is inefficient) also has reversal effects on pupil academic achievements. This statement is well proved by the 'r' value of -.502 between disorganisation and pupil academic achievement. The 'r' value of .502 is significant at .01 level of significance. 'Cliquesness' (Some students refuse to mix up with the rest of the class) is another significant variable which has significant negative relationship (r value = .378) with pupil academic achievement. If the class is divided into various small cliques and these various cliques do not mix and cooperative with each other, pupil academic achievement is negatively influenced

and this tendency of cliqueness hinders the students from achieving the heights in their academic field. Apathy (students do not care for what the class says) is also found negatively correlated with pupil academic achievement (r value = -.298). This 'r' value of = .298 is also significant even at .01 level of significance.

The other variables, (except those of Learning Environment Inventory) included in the present study are 1. Category of the school (whether the school is top scorer or poor scorer) 2. Management of the school 3. Socio-economic status (SES) of the pupil. 4. Parent participation in the educational activities of their ward and those of the school. 5. Pupil motivation. 6. Pupil Intelligence. Pupil's academic achievement is affected by the category of the school. Better results showing schools are the academic growth of the students. This fact is well proved by the 'r' value of .607 which has been found ^{significant} even at .01 level of significance. For the sake of clarity, it is repeatedly mentioned that in the present study, schools were divided into two categories-high result showing and low result showing. Similarly the type of the management - private or government - also influences pupil academic achievement. It is found that in most cases, government schools are found to be showing poorest results, whereas private schools particularly mission schools are found to be high achieving schools. Some other schools managed

by other well financed and having well-articled and aesthetic values such as Arya Samaj and Khushwant Singh, are also found to be high achievers.

Socio-economic condition of the students has a significant relationship with academic achievement; for example, pupil from poor socio-economic status fail to achieve high. Relationship between poor socio-economic status of the pupil and their academic achievement is negative, that is, if the socio-economic status of the students is not so satisfying their academic achievement is negatively affected (r value being $-.401$, which is significant even at $.01$ level).

Pupil classroom behaviour which have been assessed with the help of a socio-metric test, was classified on the basis of the factor analytical analysis of the test, into two categories - Studiousness and mischievousness. Mischievous classroom behaviour has been found to have negative significant relationship ($r = -.516$). This suggests that if the students present mischievous behaviour and perform mischievous activities, they can not achieve high.

The significant positive relationship as found in the present study, simply replicate the well-set findings of various other studies conducted in India and also in other countries - particularly in Western Countries, that intelligence has a significant and positive bearings on academic learning.

Pupil motivation as used in here for the present study, includes six sub-variables - 1. Achievement motivation 2. Achievement self-concept 3. Physical self-concept 4. Social self-concept, 5. Emotional self-concept, and 6. Locus of attention. The composite of all these six sub-variables has been termed as 'Pupil motivation' and has been assessed with the help of student informationnaire. Description of this tool can be found in the preceding chapter under the head 'Tools Used' and a copy of this tool has been given in the section 'Appendices' of the present work. It is inferred that pupil motivation is, significantly related with pupil academic achievement. The relationship($K=502$) as calculated by the computer, has been found significant even at .01 level. We may thus conclude that the pupils who are highly motivated, academically achieve high.

Parent questionnaire described in Chapter One and the copy of the same presented in the Appendixes, was used to assess parent participation in their wards' education and school activities. It is found that pupil achievement is significantly enhanced if the parents actively participate in their wards' educational activities. Their participation is always conducive to learning as there is found a significant relationship between these two variables ($r=1000$) which is given significant even at 01 level of significant).

The simple correlation values never present the net relationship between the two variables, as this relationship is affected by the relationship of other intervening variables. For eliminating the effects of other variables and for knowing the true relationship that actually exists in between two variables, partial correlation technique is used. For this study, the technique of partial correlation is also used to find out the actual and net relationship of some variables with pupil academic achievement. These partial correlation values, as found have been shown in the table 1b.3.

These partial correlation coefficient values, particularly when we taken individual scores as our unit of interpretation, reveal the same results as revealed by the simple 'r' values, for example here again Cohesiveness (.101), Diversity (.162), Environment (.270), Task (.008), Affect (.052), I.Q. (.0442) and parent participation (.246) are found having significant positive relationship with pupil academic achievement. Similarly Favouritism (-.103), Cliques (-.134), Disorganisation (-.145), Difficulty (-.208), Apathy (-.218) are found negatively correlated with pupil achievement. It means if there is favouritism in the class, if the class is divided into different cliques, it is not well organised and is indifferent towards classroom activities, its academic achievements suffer a lot.

PARTIAL 2

Partial Correlation Values

Variables	r_{12} with individual scores	r_{13} with school mean scores	r_{14} with the dif- ference scores.
1. Obsequiousness	.101 ^N	.146 ^N	.106 ^N
2. Idleness	.102 ^N	-.272 ^N	-.012
3. Formality	.073	-.382 ^N	.177 ^N
4. Speed	.030	-.330 ^N	-.088
5. Environment	.220 ^N	.043	.214 ^N
6. Friction	.042	-.366 ^N	-.176 ^N
7. Goal direction	.044	-.301 ^N	.202 ^N
8. Favouredness	-.102 ^N	-.407	-.426 ^N
9. Cleanness	-.134 ^N	-.233 ^N	-.100 ^N
10. Satisfaction	.012	-.079 ^N	.200 ^N
11. Disorganization	-.140 ^N	-.075	-.267 ^N
12. Difficulty	-.308 ^N	-.1016	.117 ^N
13. Apathy	-.218 ^N	.1218 ^N	-.112 ^N
14. Democracy	-.179 ^N	.1164 ^N	.180 ^N
15. Competitiveness	.015	.204 ^N	.132 ^N
16. Category of the school	-.172 ^N	.1332 ^N	-.236 ^N
17. Management of the school	.123 ^N	.1086	.026
18. Socio-economic status of the pupil	-.008	.1397 ^N	-.014
19. Pupil behaviour	-.1046	.1070 ^N	-.1072
20. Task	.038	-.1205 ^N	-.105
21. Affect	.032	-.1200	-.106
22. Pupil IQ	.142 ^N	-.107	.1432 ^N
23. Pupil Motivation	.0022	.1071	.002
24. Pupil Participation	.249 ^N	.1302 ^N	.125 ^N
	N 101		

Note :- The partial correlation for each LRI scale are controlled for all other variable except the other LRI scales and each all variable other than the LRI are controlled for all other variables including the LRI variables.

TABLE 4

Regressions of Achievement on Sets of Variables

<u>Sets of Independent Variables</u>	<u>Number of Variables</u>	<u>R²</u>
Student IQ	1	.690
Learning environment	15	.496
Other variables	9	.550
IQ and environment	16	.702
IQ and other variables	10	.707
Environment and other variables	24	.679
IQ, environment and other variables	25	.708

NOTES : All R² are significant at the .001 level ; and the incremental variances attributable to adding environment, the other variables, and both to the regression containing IQ are also significant at the .001 level.

The partial correlations were computed in order to explore the relationship between various dimensions of classroom climate and pupil academic achievement, and it was found that classroom climate affects pupil academic achievement to a great extent. For verifying the results so presented by the calculations of partial correlation, technique of multiple R^2 was applied and the result was, The results so obtained by the application of R^2 also confirm the high degree of relationship ($R = .795$, Covariance = 12.70) of classroom climate with pupil achievement. It means total variance due to classroom climate comes to about eighty percent ($R^2 = .638$). To those who have acquaintance with statistical terminology, the table No. 4, given below will help a lot to draw inferences about the degree of effects of classroom climate on pupil academic achievement.

TABLE 4B

General Linear Model

Dependent variable = pupil achievement

Source	Df	Sum of Squares	Mean Square	F-Value	Pr > F	R ²	C.V.	S.D.	Mean
Model	26	50089.67	2118.72	624.92	0.0001	.795	10.70	5.80	54.23
Error	413	13907.13	33.67						
Corrected Total	439	63996.82							

SECTION IV

The second main task before the present work was to explore the quality and quantity of difference that is being found in the classroom climate of the schools showing top results and bottom results. This fact is well proved by the coefficient relationship that is found between the category (top or bottom) of schools ($r = .607$) and management of the schools ($r = .209$) with pupil academic achievement. Bearing this in mind, we may conclude that the category and the type of management do influence to a significant extent, the quality and quantity of academic performance of their students. The 't' values are found to be significant even at .01 level of significance. The partialled out 't' values for category and management was calculated to be $-.607$ and $-.209$ respectively. These two values were again found to be significant at .01 level of significance.

On comparing mean values of these two types of schools, we find that top-result showing category, in other words, the high achieving schools, have greater mean values for those subvariables which have positive polarities and are more conducive to learning; whereas poorly achieving schools have greater mean values for those subvariables of the learning environment inventory which are generally considered and accepted as factors that mar pupils' performance. The fact is very clear from the table number 24.

TABLE NO. 2 *

Mean values for Achieving and Non-Achieving Schools

Variables	Total Sum	Total Mean	Achieving School N = 250		Non Achieving Schools N = 180		Mean Difference
			Mean	Sum	Mean	Sum	
1. Omisiveness	5145	11.89	14.32	3725	7.89	1420	6.43
2. Diversity	6295	14.81	16.22	4217	11.94	2078	4.88
3. Formality	5970	13.51	16.10	4187	10.02	1803	6.08
4. Speed	4090	9.80	11.39	2961	6.27	1129	5.12
5. Environment	5970	15.87	16.24	4223	9.70	1747	6.54
6. Friction	5673	12.89	12.26	3189	14.90	2684	2.34
7. Goal Direction	4420	10.05	12.25	3184	8.50	1235	5.38
8. Favoritism	4501	10.23	9.19	2128	13.18	2372	4.99
9. Clinginess	3733	9.45	6.43	1672	11.45	2061	5.02
10. Satisfaction	4759	10.82	12.60	3277	8.23	1482	4.33
11. Dis-organization	3890	9.16	9.72	1486	11.90	2104	5.98
12. Difficulty	2687	6.11	8.00	1913	6.50	1174	0.39
13. Apathy	1679	4.27	3.11	609	6.00	1070	2.89
14. Democratic	2690	6.41	6.05	1578	6.43	1297	0.38
15. Open-mindedness	4115	9.83	10.14	2637	9.81	1478	1.99

* 1 - These are manual calculations.

It is evident from Table B.5 that mean values for Cohesiveness, Satisfaction, Involvement, Oral Interaction, Task and Affect are greater for high achieving schools than for poorly achieving schools. On the contrary, mean values for those variables which have negative polarities and negative relationship with pupil performance are greater for poorly achieving schools. Mean values of Friction, Favouritism, Cliquesness, Disorganisation and Apathy are found to be greater in favour of poor achieving schools. It seems, the students of these schools are given irrationalised favour, they are divided into various cliques, the classes are disorganised and the students take less interest in classroom activities. On the contrary, the students of highly achieving schools are found to be more cohesive, satisfied and well-organised. The goals of the course are more clear and their classroom environments are more conducive to learning. They are guided by well set and well-laid down classroom rules and traditions. The total classroom climate as revealed by the three composite variables - Task, Affect and Competitiveness are also found greater in favour of highly achieving schools. On the basis of the above findings, we may thus summarise that the prevailing classroom climate in highly achieving schools is more conducive to learning while that in poorly achieving schools, is not so much conducive to learning.

SECTION V

In addition to the classroom climate, certain other factors that seemed to affect pupil academic performance were also studied in the present work. These variables and their contribution to the pupil academic performance have been highlighted in the preceding pages.

1. Teaching Time:- Actual teaching time was calculated with the help of a tape-recorder, which was kept in the classroom secretly, without the knowledge of the teacher, teaching in the classroom. One of the student was trained to operate it. The tape-recorder continued to operate for the first three periods. After having recorded the classroom activities in the cassette, its analysis with the help of a stop-watch was made. This was done in order to calculate the actual teaching time. The results emerged out of this analysis, have been presented in table No.6.

Table No.6 exhibits well that high achieving schools utilize most of their time for actual teaching where ^{as} teachers of poor achieving schools on the contrary waste their valuable time in unwanted activities and gossip.

TABLE NO. 4

**SHOWING
ACTUAL TEACHING TIME IN PERCENTAGE**

CATEGORY OF THE SCHOOL	PER-CENT OF ACTUAL TEACHING TIME
---------------------------	-------------------------------------

1. Top Schools	78
----------------	----

2. Public Schools	68
-------------------	----

3. Central Schools	67
--------------------	----

4. Bottom Schools	48
-------------------	----

2. Teacher's Qualifications :-

Another important variable that is included in the present study, is the teacher qualifications. This variable is found to be significantly related ($r = .477$) with pupil academic achievement. This positive 'r' value of $.477$ ($r^2 = .228$) is significant even at .01 level of significance. This establishes the fact that as the qualifications of the teacher increase pupil academic ^{also increase} performances. \therefore put it plainly well - qualified teachers give better results.

The data revealed that highly achieving schools have comparatively qualified teachers ($M = 12.00$, $N=260$, total score = 3121) whereas poorly achieving schools ^{are} not equipped with well-qualified teaching staff ($M=9.50$, $N=180$ total score = 1710). The mean difference of 2.50 is actual and not per chance and it also proves that top result showing schools are certainly equipped with well - qualified teaching staff.

While collecting the data, it was found that in poorly achieving schools, most of the staff is not properly qualified or these schools are short of the required teaching members. In some cases it was also observed that the teachers in poorly achieving schools are teaching those subjects which either they have never read during their student life or the subjects in which they possess a very shallow knowledge. In highly achieving schools, there were found well qualified and trained teaching personnel.

3. Pupil classroom behaviour :- The pattern of pupil classroom behaviour was assessed by a Sociometric test developed by the researcher himself on the basis of Spaulding's 'Coping Analysis Schedule'. Its factorical analysis revealed two factors which have been labelled as 'Studiousness' and 'Mischievousness'. The statistical treatment given to the data, collected for the present study, displayed a significant relationship of pupil classroom behaviour with pupil academic achievement (KME ($r = .597$ with $sp = .098$) Here ' r ' is significant at .01 level and ' sp ' at .05 level. Factor 'Mischievousness' has a negative correlation of $-.514$ which indicates that mischievous behaviour deter the students to achieve high. This finding replicates the previous findings (Walberg and Singh, 1974, Singh 1974) that student classroom behaviour has a significant relationship with pupil performance.

It was also established by the findings of the present study that the students of poorly achieving schools generally present mischievous behaviour in the classroom, whereas the students of high achieving schools demonstrate studious behaviour in the classrooms. The students of poor achieving schools are generally found engaged in activities like aggressive behaviour, manipulating and directing negatively attention getting, physical withdrawal and responding to internal stimuli, whereas students from high achieving schools commonly exhibit behaviour with paying

parent attention, advising and helping, following the directions passively and respecting their teachers and peers.

4. Parent Participation :-

Parent participation or parents' active attention towards the education of their ward, their active interest in school activities and the status provided by them to their ward at home have a strong influence upon the educational performance of their children ($r = .502$). The r^2 of .502 as given by the computer, is not so small to be ignored. This is found significant even at .01 level of significance. The tool used herewith for collecting data not only contain items to explore the parents' participation in their ward's education and school activities but also included items about the expectations of the parent from their wards, the emotional freedom that the parents give to them, the literary facilities that are made available by the parents to them at home and the actual and formal teaching by the parents at home. It is found that the parents of the students of poor achieving schools have poor expectations for their children. They have little literary facilities at their home and they do not care much about the present and future education of their children. They also generally do not go to school to enquire about the educational and behavioural dealings and developments of their ward. On the contrary, parents of the students of high achieving schools generally try to establish rapport with the teacher and the school as a whole. They have high expectance for their child and they also establish very congenial relations with the child.

Some students, who show high academic performance but are studying in poor performing schools have parents who take intense interest in the educational development of their child. They provide environment and facilities at home that are more conducive to the educational performance. They also try to establish a strengthened rapport with the teachers of their child. These parents also have high expectations for their child's present and future life.

4. Pupil Motivation :-

The quality and quantity of pupil motivation was assessed with the help of tool named as 'student informationnaire'. This test as described in the preceding chapter has six sub-scales viz achievements motivation, achievement self-concept, emotional self-concept, physical self-concept, social self-concept and the locus of attention. It is well revealed in the present study that pupil motivation has quite an important bearing on their educational performance and development. This statement or inference is well proved by the 'r' value of $+0.688$. The inter-relationship between pupil motivation and their academic achievement ('r' $+0.688$) is found quite significant even at .01 level. It means motivational pattern and quantity do a lot in the field of academic performance. If the pupil has high motivational self-concepts, he is liable better to say certainly liable - to achieve high.

It is not surprisingly found that the students reading in high achieving schools have strong and high emotional values and self-concept. This is inferred on the basis of mean differences of 38.33. Mean values on this variable for high and poor achieving schools respectively are 99.57 and 61.24. This mean difference is significant at .01 level. It shows that the difference between these two mean values is actual and not per chance. As a conclusion it can be firmly asserted that the students irrespective of their sex (both boys and girls) of high achieving schools have heightened motivation than the students of poor achieving schools.

RELATED FINDINGS :-

In addition to the findings discussed so far some other findings are also drawn from the study. These findings may be mentioned as :-

1. Sex of the pupil influences the quality and quantity of their academic achievement ('t' value .250). Here mean value goes in favour of female students. It reveals that girls are higher achievers than the boys.
2. Location of the school - Urban or Rural - also influences pupil academic achievement ($r = .400$). Rural location is found to be less academically oriented.
3. Sex of the teacher positively influences pupil academic achievement ($r = .272$). Lady teachers are found to be more effective teachers.

4. Socio-economic status influences pupil academic performance ($r = .01$). As a large number of students particularly of rural areas belong to the families of low-trodden socio-economic status, this relationship is in the negative direction.

5. Age of the teacher is found to have a very little and insignificant relationship ($r = .090$). Mean age of the teachers is found to be 32.25 years.

6. I.Q. has a very significant relationship ($R = .788$) with pupil academic achievement. In the present study I.Q. was given some other sophisticated and advanced statistical treatment. A linear multiple regression analysis revealed that about 62 percent ($R^2 = 62$ and C.V. 14.26) variance in achievement is due to the intellectual standard of the pupils. This finding again replicates the well established findings that intelligence has a high degree of relationship with academic achievement.

Here it is worth noting that no significant difference is found in the intellectual standards of rural and urban students, male and female students and of the students of high achieving and poor achieving schools. Though I.Q. were found slightly inclined towards the side of urban students, female students and towards the students of high achieving schools, but this tendency cannot be said to be significant atleast up to .05 level of significance.

SECTION VI

Testing the hypotheses

The final task before the present research work is to test the various hypotheses developed previously and mentioned in the first chapter of the present work. Out of these hypotheses, some hypotheses have already been tested in the succeeding discussions that have been presented in this very chapter. But for the sake of clarity and systematic presentation of the facts, those pre-mentioned hypotheses have been taken individually for testing purposes and their testing results have been presented in the following lines.

Hypothesis 1a.1 :-

"Sex has no bearing on the kind of the classroom climate."

For the purpose of testing the above hypothesis, technique of t test has been used. The technique of ' t test' as we know is used to test the significance of the difference of the means. Here the mean scores of lady teachers and those of male teachers have been presented below in a tabular form no.7 and t - value have been calculated :-

TABLE No.7

Mean and S.D. values of Male and Female teachers						
	Male Teachers			Female Teachers		
	Task	Mean	S.D.	Task	Mean	S.D.
Mean	27.89	2.49	2.90	38.34	2.72	3.12
S.D.	1.179	0.42	0.22	0.22	0.21	0.64

T. Values :-

For Task	=	7.33 **
Affect	=	3.98 **
Comptl.	=	1.65

df = 438

** significant at .01 level.

From the table 19.7 given above, it is well clear that lady teachers create a classroom environment that is more conducive to pupil academic achievement. The mean-difference of 9.45 (35.34 - 27.89) and 2.63 (9.32 - 6.69) respectively for 'Task' and 'Affect' composite variables have been found quite significant at .01 level of significance. 'P' value for the third composite variable 'Competitiveness', has not been found significant at any popular level of significance, but when we take total LMI scores for male and female teachers, we found that lady teachers do better for the creation of learning conducive climate. Hence the null hypothesis is rejected with the findings that sex plays an important role in the creation of classroom climate.

Hypothesis 19.2

"The hostile socio - emotional climate will only adversely affect the pupils' academic Achievement
may be a student of an urban school
or of a rural school".

The hypothesis has been tested by calculating the co-efficient of correlation between classroom climate and pupils' academic achievement. It, as mentioned

earlier, has been found that there is a high and significant relationship of academic achievement with all the three correlates variables of LM viz : Task ($r = .54$), Affect ($r = .48$) and Competitiveness ($r = .17$). *F value for these two variables = classroom climate and academic achievement = is equal to .765 with $R^2 = .498$ it means 62% variance in academic achievement is due to classroom environment. With the use of Shrinkage formula, effects of inflation were checked and the shrunken R^2 comes to .46. The Shrunken R^2 and the original R^2 both depict the same result as the 'N' is quite large (N = 440) hence shrinkage makes no worth while change in R^2 .

From the above discussion it is clear that classroom climate affects pupil academic achievement to a significant degree and if the classroom climate is adverse or hostile, it may paralyse pupil academic achievement. Hence, the hypothesis as developed is accepted with confidence.

Hypothesis 3.

"The Socio - emotional climate of the classes in the rural area schools is more healthier and so more conducive to learning than the one prevailing in the classrooms of the urban area schools."

This hypothesis is again tested with the help of t- test. When we compare the mean values of rural and urban schools, we found that most of the poor achieving schools are from rural areas. But poor achievement of rural area schools may be the result of so many factors such

as poor socio-economic status, poor home environment, lack of study facilities, lack of parent participation in their wards' education, poor expectations and aspirations etc. As regards classroom climate, it is found that rural schools have more learning conducive classroom climate in comparison to urban schools. But there comes a question when the classroom climate of rural area schools is more learning conducive, why then their achievements are not so high. To answer this question we can only say that there is a number of other factors that adversely affects their academic achievement.

It is worthwhile to note that location of the school - location in rural areas or in urban areas - has a significant bearing on socio-economic status ($r = .61807$, $P = .0001$), teacher education ($r = .48797$, $P = .0001$), pupil behaviour ($r = .2893$, $P = .0001$), pupil achievement ($r = -.4007$, $P = .0001$) parent participation ($r = -.280$, $P = .0001$) and pupil motivation ($r = .20096$, $P = .0001$). It proves that location immensely affects factors that are responsible for poor or high academic achievement.

Hypothesis No. 2

"There is no difference between the classroom climate of the government and private schools."

For the purpose of testing the above hypothesis, technique of t-test has been used. With the help of t-test significance of mean difference has been tested. Table No. 8 presents mean and S.D. values of all the three aspects

variables of the LRI for government and private schools.

TABLE NO. 8

Mean and S.D. values for
Government and Private

SCHOOLS

	Government Schools N = 200			Private Schools N = 240		
	Task	Affect	Compti.	Task	Affect	Compti.
Mean	24.37	4.93	7.98	35.796	9.91	10.496
S.D.	10.23	15.21	3.94	9.25	12.58	2.36

Note :- Central Schools have been treated as Government schools
t - values

For Task = 12.22, **

For Affect = 3.69 **

For competitiveness = 2.396 *

** Significant at .01 level

* Significant at .05 level

From the table No.8, it is well clear that all the mean values are significant and these values are in favour of private schools. If we peep into the list of the high and low achieving schools, it is again clear that out of 15 top results showing schools (when we exclude central schools) there is only one government school, whereas there are eleven government schools in the list of poor achieving schools. It means most of the schools administered by the State Education Department of Rajasthan government are poor achieving schools. The best results showing schools are those managed by private organisations.

such as Missions, Arya Samaj and Maheshwari Sabha etc. The socio emotional climate that prevails in these schools is definitely more favourable for higher achievement. Hence the hypothesis so formed is hereby rejected with the establishment of the findings that comparatively a more conducive to learning type of climate prevails in private schools.

Hypothesis No. 5.....

"The academic achievement
is immensely influenced by
the classroom climate."

This hypothesis has already been dealt with in the second section of the present chapter. In this section it has been statistically proved that the classroom climate influences pupil academic achievement to a great extent. For the support of this conclusion various 'r' r_p and 'R' values are given in this section. These values particularly regress and correlation co-efficient values prove that the socio - emotional climate not only influences pupil academic achievement, but also serve as a very good and reliable predictor of pupil academic achievement. In this way, the hypothesis mentioned in the synopsis of this work at no.2 is proved and accepted. This hypothesis in the synopsis runs as :-

"Learning environment
of the classroom is a
good predictor of
scholastic achievement."

To test this hypothesis general linear models procedure was adopted and regression and R^2 value was calculated. The regression R^2 value, as stated earlier, comes to .788 (with $R^2 = .62$ and covariance = 14.26). This R^2 value is significant even at .0001 level. It means 62% variance in pupil scholastic attainments is due to classroom climate. In a layman's language we can only state that learning environment is a good predictor of pupil academic attainment.

Hypothesis No. 6

"The Classroom climate is closely related with pupils' behavioural development."

The classroom climate not only influences pupils' scholastic achievements but it also colours pupils' classroom behavioural activities. All the three composite variables - Task, Affect and Competitiveness have been found significantly related with pupil classroom behaviour (Task = .3130, Affect = .203, and Compl = .201). It means pupils present a decent and constructive behaviour in the classes where a more positive and lively learning environment flourishes and on the contrary, hostile and autocratic type of learning environment paves the way for the development of unwanted and mischievous classroom behaviour on the part of the students. It is also concluded here that pupils' classroom behaviour has a significant relationship with their academic attainment.

APPENDICES

- 1. REFERENCES**
- 2. THE TOOLS**
- 3. THE SAMPLE SCHEDULE**
- 4. SAMPLE FOR THE ANALYSIS
OF ACTUAL TEACHING TIME.**

APPENDIX--1

R E F E R E N C E S

REFERENCES

1. Aaron, Sadie, The Prediction Value of Cumulative Past Results. Doctorate Thesis, Stanford University, 1946.
2. Anderson, H.H. The Measurement of Domination and of Socially Integrative Behaviour in Teacher Contacts with Children. Child Development, 10,2,pp. 73-79, 1939, Reproduced from Interaction Analysis Theory.
3. Barr, A. S. et. al, 'The Measurement and Prediction of Teaching Efficiency.' Review of Educational Research, 28, pp. 256-264, 1955.
4. Barry, H. Bacon, M.K. Child. I.L.' A Cross-Cultural Survey of Some Sex Differences in Socialisation.' Journal of Abnormal and Social Behaviour, 55, pp. 327-333. 1957.
5. Beilins, H. and Warner, E, ' Sex Differences among Teachers in the Use of Criteria of Adjustment.' Journal of Educational Psychology, 28pp. 475-490, 1957.
6. Beilins, H., ' Teachers' and ' Clinicians' attitude towards the Behaviour Problems of Children: A Repraisal, Child Development, 30,pp, 9-25, 1959.
7. Bhatnagar, R.P. A Study of some of the Personality Factors as Predictors of Academic Achievement. And unpublished Doctorate Thesis, University of Delhi, 1967.
8. Binet, A. & Henri, V. ' La Psychologie Individuelle'

Annual Psychology 2, pp. 413-63, 1895.

9. Bishton, R.' A Study of Some Factors Related to Achievement of Intellectually Superior Eight Grade Children.'
- ~~xxx~~ Journal of Educational Research, 51 pp. 203-207, 1957.
10. Breese C.N. 'Affective Factors associated with Academic underachievement in High School Students. Research in School and College Personal. Summaries of Unpublished Studies, Sept, 1965 to Sept, 1968 U.S. Deptt. of Education.
11. Brookover, V.B.' A Social Psychological Conception of Classroom Learning.' School Sociology, 87,1959.
12. Burt C.' Relations of Educational Abilities.' British Journal of Educational Psychology, 9,pp. 45-71, 1939.
13. Cantor, N., The Teaching Learning Process. Holt, Rinehart and Winston, N.Y, 1963.
14. Clancy, N, and Smitter, F.' A study of Emotionally Disturbed Children in Santa Barbara County Schools.' California Journal of Educational Research 4,pp. 209, 222, 1953.
15. Ohler, M.W. ' Scholastic Status of Achievers and non achievers of Superior Intelligence' Journal of Educational Psychology, 32,pp. 603-610, 1961.
16. Ogen M.L. ' The Behaviour of Teachers and the Productive Behaviour of their Pupils' Journal of Experimental Education, 37, pp.89-105,1958.

17. Connor, D.V. 'Behaviour in Class Group of Constrasting Climate'. British Journal of Educational Psychology 38, pp. 244-249. Nov. 1966.
18. Della, Prana & Gage 'Educational Psychology.' (Ed.) Holt, Rivehart and Wiston P. 398.
19. Desajh, N.L. 'Progressive Matrices as a Tool for Diversification at Higher Secondary Level'. Punjab Educational Quarterly, 13. PP. 328-332, 1957.
20. Drews, E.M. and Teahan, J.E. & Parental Attitudes and Academic Achievement.' Journal of Clinical Psychology, 13. PP, 328-332. 1957.
21. Eysenck, H.J. Dynamics of Anxiety and Hysteria, Routledge and Kegan Paul, London, 1957.
22. Freud, A, The Ego and the Mechanisms of Defence, New York, International University Press 1946.
23. Flashman, E.A. 'Motor Abilities' Encyclopedia of Educational Research, 4th Ed. Robert L (Ed) Macmillan 1969, pp 888-93.
24. Furst, N. 'The Effects of Training in Interaction Analysis on the Behaviour of Students-teachers in Secondary Schools'. produced in Interaction Analysis Theory Research and Application, by Amindon and Hough (eds.) 1967 PP. 375-328.
25. Gaugh, H.G. Factors Related to Differential Achievement among Gifted Person, University of California Barkley, 1955 (mimeo) Produced in Educational Sociology, 35, PP: 122-133, 1961.

26. Hall, D.T. 'The Effects of Teachers- Students Congruence upon Student Learning in College Classes.' *Journal of Educational Psychology*, 61,3.PP. 205-313. 1970.
27. Hoehn, A.' Study of Social Status Differentiation in the Classroom Behaviour of Nineteen Third Grade Teachers.' *Journal of Social Psychology*, 39, PP.269-292, 1954.
28. Kausmeir, H.J., Felchusen, J. and Check, J.:
'An Analysis of Learning Efficiency in Arithmetic of Mentally Retarded Children in comparison with Children of Average and High Intelligence. '
'Research Report to the United State Office of Education. Madison School of Education University of Wisconsin, 1959.
29. Kay, H., 'Learning of a Social Task by Different Age Groups'. *Quarterly Journal of Experimental Psychology*, 3, PP.166-183, 1951.
30. Kelley, H.H. 'Communication in Experimentally Created Hierarchy.' *Human Relations*, 4.PP. 39-56, 1951.
31. Kennedy, P.E. 'The Validity of the School and College Ability Test for Prediction of College Achievement.' *California Journal of Education Research*, 9,2, 62-73, 1958.
32. Kenneth, R.J. 'A Psychometric Study of Students Attitudes as a Measures of Academic Motivation'.

California Journal of Education Research, 10,5PP
199-203, 1995.

33. Kimbell, B. 'Case Study in Educational Failure During Adolescence.' American Journal of Orthopsychiatry, 23, 2, PP. 415-420, 1953.
34. Labue, A.C. 'A Study of Motivation of 'Persistent' vs. 'Non-persistent' Students in Teacher Education.' Journal of Teacher Education, 5, PP. 242-247, 1954.
35. Leeds, C.H. 'Teacher Behaviour liked and disliked by the Students'. Education, 75, PP. 29-37, 1955.
36. Loeck, P. Self Consistency : A Theory of Personality, Island Press, New York, 1951.
37. Lewin, K., Lippitt, R., and White, R.K. 'Patterns of Aggressive Behaviour in Experimentally Created Social Climates.' Journal of Social Psychology 10, 3, PP. 271-299, 1939.
38. Loeck, P. 'Self Consistency: A Theory of Personality' Island Press. N.Y. 1951.
39. Lum, K.M. 'A Comparison of Under- and over-achieving Female College Students'. Journal of Educational Psychology, 51, 3, PP. 11-117, 1961.
40. Maller, J.B. 'Age Versus Intelligence as a Basis for Prediction of Success in High School.' College Teacher Record, 33, PP. 402-415, 1932.
41. Miles, W.R. 'Age and Human Ability,' Psychological Review, 40, PP. 99-123, 1933.
42. Moon, R.A. 'The Problem of Success and Failure in

the School -age Child. 'Journal of Kansas Medical Society, 52,P, 45,1951, cited in Self Concepts of Bright by Maria Walsh, Bureau of Publications, Teachers College, Columbia University, Columbia, 1956.

43. Moskowitz, G, ' The Attitude and Teaching Patterns of Cooperating Teachers and Students Trained in Interaction Analysis, reproduced from Interaction Analysis, Theory, Research and Application by Amidon and Hugh (eds.) Addison Wesley Publishing Co., Readings, 1967.
44. Nannum, A, ' The Relationship of Intellectual Achievement to the Process of Identification.' cited in Psychological Problems of College Men by B.M. Wedge (ed.) Yale University Press, New Haven 1958.
45. Ormiston, M, ' The Bearing of General and Special Abilities upon Scholastic Success at the Beginning and end of a Secondary School Career.' British Journal of Educational Psychology, 35,3, 1939,P. 169 and 216.
46. H.V. 'Climate Influence Group Learning.' Journal of Educational Research, 42, 2, PP. 115-119, 1957.
47. Raimy, V.' Self Reference in Counselling Interview.' Journal of Consultant Psychology, 12 PP. 153-165 and 315-317, 1948.

48. Rogers, C.R. 'Significant Learning In Therapy and in Education.' Education Leadership, January, 1959.
49. Rowan, N.T. 'The Relationship of Teacher Interaction in Classroom Situations to Teacher Personality Variables.' Classroom Interaction News Letter, 33, PP. 28-29, 1968.
50. Ryans, D.G. Characteristics of Teachers, Delhi, Sterling Publishers, 1969.
51. 'Theory Development and the Study of Teacher Behaviour.' Journal of Education Psychology, 47, PP. 462-475, 1956.
52. The Criteria of Teacher Effectiveness. 'Journal of Educational Psychology, 47, PP. 690-699. 1949.
53. 'Some Validity Extension Data from Empirically Derived Predictors of Teacher Behaviour,' Educational and Psychological Measurement, 19, PP. 355-370, 1958.
54. 'Some Correlates of Teacher Behaviour.' Educational and Psychological Measurement, 19, PP. 3-12, 1959.
55. 'Relationship between Pupil Behaviour and Certain Teacher Characteristics.' Journal of Educational Psychology, 52, PP. 82-90, 1961.
56. Savage, R.D. 'Personality Factors and Academic performances.' British Journal of Educational Psychology, 32, 3, PP. 251-253, 1962.
57. Schoepes, A., and Havinghurst, R.J. 'Validation

Development and Adjustment Hypotheses of Adolescence.' *Journal of Educational Psychology*, 42, PP. 339-353, 1952.

58. Schunert, J. 'The Association of Mathematical Achievement with Certain Factors Resident in the School,' *Journal of Experimental Education*, 19, PP.219-238.1951.
59. Sears PS, 'Educational Psychology: A Cognitive View.' 'Asnbel(Ed.) Holt. Rinehart and Winston P. 452.
60. Secord, P.E. and Backman, O.W. *Social Psychology*, Mc Graw Hill Book Co. New. York, 1964.
61. Shannon, J.R. & 'A Comparison of High Successful Teachers, Failing Teachers, and Average Teachers at the time of Graduation from Indian State Teachers College,' *Educational Administration and Supervision*, 21, PP. 43-51, 1946. Quoted by H. J. Kaessler in *Learning and Human Abilities: Human Psychology*, New York, Harper and Row , 1961, PP. 94-118.
62. Smith, N.B. 'Effective Reading for College Students' Dryden Press, N.Y. 1957, P.173.
63. Sear, R.C. Wither Research on Teacher Behaviour.' *Classroom Interaction Newsletter*, 33, 1, PP.9-11, 1967.
64. Solomon, D., Rosenberg, L. and Bezdek, W.B. 'Teacher Behaviour and Student Learning' *Journal of Experimental Educational Psychology*, 55, 1, PP. 230-235, 1964.

65.
~~65.~~ 'Dimensions of Teacher Behaviour.' Journal of Experimental Education, 33, 1 PP. 23-40, 1964.
66. Stone C.F. 'Sexual Drive' Chapter XVIII in Sex and Internal Secretions; Edger Allen(ed.) Baltimore, 1932.
67. Storile, 'The Application of Interaction Analysis to the Inservice Training of Teachers.' Published in Interaction Analysis, Theory, Research and Application by Amidon and Hugh (eds.) Addison Wesley Publishing Co. 1965, PP.262-270.
68. Terman, L.M. and Tyler L.E. 'Psychological Sex Differences.' in L.Cammichael (ed) Manual of Child Psychology, New York, John Wiley & Sons Inc. 1954 PP. 1064-1114.
69. Thibaut, J. 'An Experimental Study of the Cohesiveness of under Privileged Groups.' Human Relations, 3, PP.251 -278, 1950.
70. Tolman, E.C.Purposive Behaviour in Animal and Men, The Macmillan Co., New York, 1932.
71. Tyler, L.E. 'Sex Difference.' in the Psychology of Human Differences, L.E. Tuler (ed.) New York, Appleton- Century- Crofts, Inc. 1957, PP. 247-275.
72. Verma, R.P.S. 'Socio-emotional Climate and School Learnings.' National Psychological Corporation Org. 1979.P.3.
73. Walberg, H.J. and Anderson, G.W. 'Classroom Climate and Individual Learning.' Journal of

Educational Psychology, 59,6,PP.414-419, 1968.

74. Mithall, J., 'Evaluation of Classroom Climate'
Childhood Education, March, 1969.
75. 'Disadvantaged Learning and Librating Socio
emotional Learning Climate in English Class.'
The Disadvantaged, Part. I, H.R. Fagan (ed.).
76. Zahn, R.D. 'The Use of Interaction Analysis in
Supervising Student Teachers.' Published in
Interaction Analysis, Theory, Research and
Application by Amidon and Hough, (eds.) Addison
Wesley, Publishing Co. PP. 295-298. 1965.
77. The Secondary Education Commission (1952-53)
Report, Ministry of Education, Government of
India.
78. The Education Commission (1964-66) Report,
Ministry of Education, Government of India.
79. Education of Psychology Review, VolX, No.4, 1970
Faculty of Education and Psychology, M.S.
University of Baroda.
80. Bhartiya Shiksha, November 1969, December, 1970
and January, 1970 issues.

07001-0001

113

2003

learning environment inventory

Name of the Student _____

School _____

Class _____ *Section* _____

*Marks secured in the
Last Examination* _____

*Percentage of
Marks* _____

Learning Environment Inventory

Directions

The purpose of the questions in this booklet is to find out what your class is like. This is not a "test". You are asked to give your honest, frank opinions about the class which you are now attending.

In answering each question go through the following steps :

1. Read the statement carefully.
2. Think about how well the statement describes your class (the one you are now in).
3. Find the answer and encircle it.

If you strongly disagree with the statement blacken space 1.

If you disagree with the statement, blacken space 2.

If you agree with the statement, blacken space 3.

If you strongly agree with the statement, blacken space 4.

4. You will have approximately 40 minutes to complete the 105 questions in the booklet.

	Strongly disagree	Disagree	Agree	Strongly agree
1. Members of the class do favours for one another.	1	2	3	4
2. The books and equipment students need or want are easily available to them in the classroom	1	2	3	4
3. There are long periods during which the class does nothing	1	2	3	4
4. The class has students with many different interest	1	2	3	4
5. Certain students work only with their close friends	1	2	3	4
6. The students enjoy their class work.	1	2	3	4
7. Students who break the rules are penalized.	1	2	3	4
8. There is constant bickering among class members.	1	2	3	4
9. The better students' questions are more sympathetically answered than those of the average students.	1	2	3	4
10. The class knows exactly what it has to get done.	1	2	3	4
11. Interests vary greatly within the group.	1	2	3	4
12. A good collection of books and magazines is available in the classroom for students to use.	1	2	3	4
13. The work of the class is difficult.	1	2	3	4
14. Every member of the class enjoys the same privileges.	1	2	3	4
15. Most students want their work to be better than their friends' work.	1	2	3	4

	Strongly disagree	Disagree	Agree	Strongly agree
16. The class has rules to guide its activities.	1	2	3	4
17. Personal dissatisfaction with the class is too small to be a problem.	1	2	3	4
18. A student has the chance to get to know all other students in the class	1	2	3	4
19. The work of the class is frequently interrupted when some students have nothing to do.	1	2	3	4
20. Students cooperate equally with all class members	1	2	3	4
21. Many students are dissatisfied with much that the class does	1	2	3	4
22. The better students are granted special Privileges	1	2	3	4
23. The objectives of the class are not clearly recognized.	1	2	3	4
24. Only the good students are given special projects.	1	2	3	4
25. Class decisions tend to be made by all the students	1	2	3	4
26. The students would be proud to show the classroom to a visitor.	1	2	3	4
27. The pace of the class is rushed.	1	2	3	4
28. Some students refuse to mix with the rest of the class.	1	2	3	4
29. Decisions affecting the class tend to be made democratically.	1	2	3	4
30. Certain students have no respect for other students.	1	2	3	4

	Strongly disagree	Disagree	Agree	Strongly agree
31. Some groups of students work together regardless of what the rest of the class is doing.	1	2	3	4
32. Members of the class are personal friends.	1	2	3	4
33. The class is well organized.	1	2	3	4
34. Some students are interested in completely different things than other students.	1	2	3	4
35. Certain students have more influence on the class than others.	1	2	3	4
36. The room is bright and comfortable.	1	2	3	4
37. Class members tend to pursue different kinds of problems	1	2	3	4
38. There is considerable dissatisfaction with the work of the class.	1	2	3	4
39. Failure of the class would mean little to individual members.	1	2	3	4
40. The class is disorganized.	1	2	3	4
41. Students compete to see who can do the best work.	1	2	3	4
42. Certain students impose their wishes on the whole class	1	2	3	4
43. A few of the class members always try to do better than the others.	1	2	3	4
44. There are tensions among certain groups of students that tend to interfere with class activities.	1	2	3	4
45. The class is well-organized and efficient	1	2	3	4

	Strongly disagree	Disagree	Agree	Strongly agree
46. Students are constantly challenged.	1	2	3	4
47. Students feel left out unless they compete with their classmates	1	2	3	4
48. Students are asked to follow strict rules.	1	2	3	4
49. The class is controlled by the actions of a few members who are favoured.	1	2	3	4
50. Students don't care about the future of the class as a group	1	2	3	4
51. Each member of the class has as much influence as any other member	1	2	3	4
52. The members look forward to coming to class meetings	1	2	3	4
53. The subject studied requires no particular aptitude on the part of the students	1	2	3	4
54. Members of the class don't care what the class does.	1	2	3	4
55. There are displays around the room	1	2	3	4
56. All students know each other very well.	1	2	3	4
57. The classroom is too crowded	1	2	3	4
58. Students are not in close enough contact to develop likes or dislikes for one another	1	2	3	4
59. The class is rather informal and few rules are imposed	1	2	3	4
60. Students have little idea of what the class is attempting to accomplish.	1	2	3	4

	Strongly disagree	Disagree	Agree	Strongly agree
61. There is a recognized right and wrong way of going about class activities	1	2	3	4
62. What the class does is determined by all the students	1	2	3	4
63. After the class, the students have a sense of satisfaction.	1	2	3	4
64. Most students cooperate rather than compete with one another	1	2	3	4
65. The objectives of the class are specific.	1	2	3	4
66. Students in the class tend to find the work hard to do	1	2	3	4
67. Each student knows the goals of the course.	1	2	3	4
68. All classroom procedures are well-established	1	2	3	4
69. Certain students in the class are responsible for petty quarrels	1	2	3	4
70. Many class members are confused by what goes on in class	1	2	3	4
71. The class is made up of individuals who do not know each other well	1	2	3	4
72. The class divides its efforts among several purposes.	1	2	3	4
73. The class has plenty of time to cover the prescribed amount of work.	1	2	3	4
74. Students who have past histories of being discipline problems are discriminated against.	1	2	3	4
75. Students do not have to hurry to finish their work.	1	2	3	4

	Strongly disagree	Disagree	Agree	Strongly agree
76. Certain groups of friends tend to sit together.	1	2	3	4
77. There is much competition in the class.	1	2	3	4
78. The subject presentation is too elementary for many students.	1	2	3	4
79. Students are well-satisfied with the work of the class	1	2	3	4
80. A few members of the class have much greater influence than the other members	1	2	3	4
81. There is a set of rules for the students to follow	1	2	3	4
82. Certain students don't like other students.	1	2	3	4
83. The class realizes exactly how much work it has to do.	1	2	3	4
84. Students share a common concern for the success of the class	1	2	3	4
85. There is little time for day-dreaming.	1	2	3	4
86. The class is working toward many different goals.	1	2	3	4
87. The class members feel rushed to finish their work.	1	2	3	4
88. Certain students are considered uncooperative.	1	2	3	4
89. Most students sincerely want the class to be a success.	1	2	3	4
90. There is enough room for both individual and group work.	1	2	3	4

	Strongly disagree	Disagree	Agree	Strongly agree
91. Each student knows the other members of the class by their first names.	1	2	3	4
92. Failure of the class would mean nothing to most members.	1	2	3	4
93. The class has difficulty keeping up with its assigned work.	1	2	3	4
94. There is a great deal of confusion during class meetings.	1	2	3	4
95. Different students vary a great deal regarding which aspect of the class they are interested in.	1	2	3	4
96. Each student in the class has a clear idea of the class goals.	1	2	3	4
97. Most students cooperate equally with other class members.	1	2	3	4
98. Certain students are favoured more than the rest.	1	2	3	4
99. Students have a great concern for the progress of the class.	1	2	3	4
100. Certain students stick together in small groups.	1	2	3	4
101. Most students consider the subjectmatter easy.	1	2	3	4
102. The course material is covered quickly.	1	2	3	4
103. There is an undercurrent of feeling among students that tends to pull the class apart.	1	2	3	4
104. Many students in the school would have difficulty doing the advanced work of the class	1	2	3	4
105. Students seldom compete with one another.	1	2	3	4

कक्षा-पर्यावरण-मापनी

—:—

छात्र का नाम

विद्यालय

कक्षा

विभाग

गत परीक्षा में प्राप्त अंक

प्रतिशत

अधिगम—पर्यावरण मापनी

निर्देश

प्रस्तुत पुस्तिका में सूची गई बातें आपकी कक्षा से सम्बन्धित है। यह कोई 'परीक्षा' नहीं है और न आपके उत्तर आपके शिक्षकों को ही दिखाये जायेंगे अतः आपमें आशा है कि आप पूरी ईमानदारी निडरता तथा सच्चाई के साथ उत्तर देंगे। आपको केवल अपनी कक्षा से सम्बन्धित ज्ञान उत्तर हो देने है।

उत्तर देने में निम्न बातें ध्यान रखें:—

1. प्रत्येक वाक्य को सावधानी से पढ़ें।
2. सोचें की कथन आपकी कक्षा पर कहाँ तक लागू होता है।
3. प्रत्येक कथन के आगे एक से चार तक संख्याएँ दी हैं।

इनमें जिसे आप ठीक समझें वही में (O) बंद कर दें।

यदि आप कथन से पूर्ण असहमत हैं तो 1 पर गोला बना दें।

यदि आप आंशिक रूप से असहमत हैं तो 2 पर गोला बना दें।

यदि आप सहमत हैं तो 3 पर गोला कर दें।

यदि आप पूरी तरह कथन से सहमत हैं तो 4 पर गोला बना दें।

आपको 105 कथनों का उत्तर देने को करीब 40 मिनट का समय दिया जायेगा।

	पूर्ण सहमत	असहमत	सहमत	पूर्ण सहमत
1. कक्षा के सभी सदस्य एक दूसरे को सहयोग देते हैं ।	1	2	3	4
2. कक्षा में पुस्तकें तथा अन्य शिक्षण-सामान भाषाती से मिल जाता है ।	1	2	3	4
3. कक्षा के घण्टे खाली पड़े रहते हैं ।	1	2	3	4
4. कक्षा के छात्रों की रुचियां अलग-अलग हैं ।	1	2	3	4
5. कुछ छात्र केवल अपने कुछ दोस्तों के साथ ही रहते हैं ।	1	2	3	4
6. छात्र कक्षा-कार्य में आनन्द का अनुभव करते हैं ।	1	2	3	4
7. नियम तोड़ने वाले छात्र दण्डित होते हैं ।	1	2	3	4
8. कक्षा में खुसुर-पुसुर होती रहती है ।	1	2	3	4
9. होंशियार छात्रों के उत्तर अधिक सहानुभूतियों पूर्वक दिये जाते हैं ।	1	2	3	4
10. कक्षा को माझूम रहता है कि उसे क्या कार्य करना है ।	1	2	3	4
11. छात्रों की रुचियां अलग-अलग हैं ।	1	2	3	4
12. कक्षा में पर्याप्त मात्रा में शिक्षण-सामान उपलब्ध होता है ।	1	2	3	4
13. कक्षा का कार्य बड़ा कठिन होता है ।	1	2	3	4
14. कक्षा में प्रत्येक छात्र को समान सुविधाएं मिलती हैं ।	1	2	3	4
15. प्रत्येक छात्र दूसरे छात्रों से अच्छा काम करना चाहता है ।	1	2	3	4

	पूर्ण अनहृत	अनहृत	अनहृत	पूर्ण सहमत
16. कक्षा के कार्य कक्षा के नियमों के अनुसार चलते हैं ।	1	2	3	4
17. कक्षा में छात्रों को व्यक्तिगत असंतोष नहीं होता है ।	1	2	3	4
18. प्रत्येक छात्र कक्षा के सभी अन्य साधियों के साथ परिचय रखता है ।	1	2	3	4
19. कोई कोई छात्र कक्षा-कार्यों में बाधा पहुँचा देते हैं ।	1	2	3	4
20. प्रत्येक छात्र एक दूसरे को सहयोग प्रदान करता है ।	1	2	3	4

21. अधिकांश छात्र कक्षा के कार्यों से असंतुष्ट रहते हैं ।	1	2	3	4
22. कक्षा में अच्छे छात्रों को अधिक सुविधायें दी जाती हैं ।	1	2	3	4
23. कक्षा के कार्यों के उद्देश्य स्पष्ट नहीं होते हैं ।	1	2	3	4
24. अच्छे छात्रों को विशिष्ट कार्य दिये जाते हैं ।	1	2	3	4
25. कक्षा के निर्णय सभी छात्रों की सम्मति से लिये जाते हैं ।	1	2	3	4

26. बाहर के व्यक्ति को कक्षा दिखाने में छात्रों को लुशी होती है ।	1	2	3	4
27. कक्षा कार्य बड़ी तीव्र गति से होता है ।	1	2	3	4
28. कुछ छात्र कक्षा के अन्य छात्रों से नहीं मिलते जुलते हैं ।	1	2	3	4
29. कक्षा निर्णय प्रजातांत्रिक ढंग से लिये जाते हैं ।	1	2	3	4
30. कुछ छात्र अन्य छात्रों का सम्मान नहीं करते हैं ।	1	2	3	4

	पूर्ण सहमत	असहमत	सहमत	पूर्ण सहमत
31. कुछ छात्र अन्य छात्रों की परवाह किये बिना पृथक कार्य करते हैं।	1	2	3	4
32. सभी छात्रों में परस्पर मित्रता है।	1	2	3	4
33. कक्षा सुसंगठित रहती है।	1	2	3	4
34. कुछ छात्र कक्षा कार्यों से पृथक कार्य करते रहते हैं।	1	2	3	4
35. कक्षा पर कुछेक छात्रों का अधिक प्रभाव रहता है।	1	2	3	4
36. कक्षा का कमरा प्रकाशयुक्त व हवादार है।	1	2	3	4
37. प्रत्येक छात्र भलग भलग क्रियाएँ करता है।	1	2	3	4
38. कक्षा कार्यों के प्रति सामान्य असंतोष रहता है।	1	2	3	4
39. कक्षा की असफलता की ओर कोई ध्यान नहीं देता है।	1	2	3	4
40. कक्षा असंगठित रहती है।	1	2	3	4
41. छात्रों में अच्छा काम करने की होड़ रहती है।	1	2	3	4
42. कुछ छात्र दूसरे छात्रों पर अपनी इच्छाएँ लाद देते हैं।	1	2	3	4
43. कुछ छात्र दूसरे छात्रों से अच्छा कार्य करने की कोशिश करते हैं।	1	2	3	4
44. कुछ छात्र अपने कामों के द्वारा कक्षा में तनाव पैदा करते हैं।	1	2	3	4
45. कक्षा का कार्य ठीक प्रकार से चलता है।	1	2	3	4

	पूर्ण सहमत	असहमत	सहमत	पूर्ण सहमत
46. छात्र लगातार अच्छा कार्य करने को सोचते हैं ।	1	2	3	4
47. कक्षा का कार्य अधूरा रहने पर छात्रों में असंतोष रहता है ।	1	2	3	4
48. छात्रों को कड़े नियमों का पालन करना पड़ता है ।	1	2	3	4
49. कक्षा की क्रियाओं पर कुछ ही छात्रों का नियंत्रण रहता है ।	1	2	3	4
50. छात्र कक्षा के भविष्य की चिन्ता नहीं करते हैं ।	1	2	3	4
51. कक्षा के कार्यों पर सभी छात्रों का बराबर प्रभाव रहता है ।	1	2	3	4
52. सभी छात्र कक्षा कार्य में समान रूप से भाग लेते हैं ।	1	2	3	4
53. कक्षा के कार्यों को पूरा करने के लिये किन्हीं विशेष योग्यताओं की आवश्यकता नहीं पड़ती है ।	1	2	3	4
54. कक्षा कार्यों की छात्रों को चिन्ता नहीं रहती है ।	1	2	3	4
55. कक्षा के चारों ओर का वातावरण अच्छा रहता है ।	1	2	3	4
56. सभी छात्र एक दूसरे को भली प्रकार जानते हैं ।	1	2	3	4
57. कक्षा में बहुत अधिक भोड़ रहती है ।	1	2	3	4
58. छात्र एक दूसरे से परिचय प्राप्त नहीं कर पाते ।	1	2	3	4
59. कक्षा के लिये कुछ ही नियम बनाये गये हैं ।	1	2	3	4
60. कक्षा में क्या कार्य होगा इसका ध्यान बहुत कम छात्रों को रहता है ।	1	2	3	4

	पूर्ण असहमत	असहमत	सहमत	पूर्ण सहमत
61. कक्षा कार्यों की जाँच के स्पष्ट नियम हैं।	1	2	3	4
62. कक्षा क्या काम करेगी इसका निर्णय सभी छात्र मिलकर लेते हैं।	1	2	3	4
63. कक्षा कार्यों से सभी छात्रों को संतोष मिलता है।	1	2	3	4
64. प्रतिस्पर्धा के स्थान पर सभी छात्र एक दूसरे को सहयोग देते हैं।	1	2	3	4
65. कक्षा के उद्देश्य स्पष्ट होते हैं।	1	2	3	4
66. कक्षा कार्य को हम सब कठिन पाते हैं।	1	2	3	4
67. प्रत्येक छात्र पढ़ाई के उद्देश्य जानते हैं।	1	2	3	4
68. कक्षा-क्रियाएँ पूरी तरह से नियमबद्ध होती हैं।	1	2	3	4
69. कक्षा के भागदों को कुछ ही छात्र उकसाते हैं।	1	2	3	4
70. कक्षा के कुछ छात्र कक्षा की क्रियाओं को असहमत कर देते हैं।	1	2	3	4
71. कक्षा के छात्र एक दूसरे से अधिक सम्बन्ध नहीं रखते हैं।	1	2	3	4
72. कक्षा कई छोटे छोटे समूहों में बँटी हुई है।	1	2	3	4
73. कक्षा कार्य करने को पर्याप्त समय मिलता है।	1	2	3	4
74. अनुशासन हीन बालकों के साथ भेदभाव किया जाता है।	1	2	3	4
75. कक्षा कार्य करने की छात्रों को कोई जरूरी नहीं होती है।	1	2	3	4

	पूर्ण समूह	प्रसह्युत	समूह	पूर्ण समूह
76. मित्रों के कुछ समूह साथ साथ बैठते हैं।	1	2	3	4
77. कक्षा में पर्याप्त प्रतिस्पर्धा रहती है।	1	2	3	4
78. कक्षा में काफी सरल विषय पढ़ाये जाते हैं।	1	2	3	4
79. कक्षा कार्य छात्रों को संतुष्ट करता है।	1	2	3	4
80. कक्षा में कुछ छात्र अधिक प्रभावशाली हैं।				
81. छात्रों को पूर्व-निर्मित नियमों का पालन करना पड़ता है।	1	2	3	4
82. कुछ छात्र दूसरे छात्रों को पसन्द नहीं करते हैं।	1	2	3	4
83. कक्षा को सांभल रहता है कि उसे कितना काम करना पड़ता है।	1	2	3	4
84. सम्पूर्ण कक्षा की सफलता के लिये सभी मिलजुल कर कार्य करते हैं।	1	2	3	4
85. व्यर्थ की बातों को सोचने को छात्रों समय नहीं मिलता है।	1	2	3	4
86. कक्षा के छात्र पृथक पृथक उद्देश्यों के लिये कार्य करते हैं।	1	2	3	4
87. छात्रों को कक्षा कार्य करने की जल्दी रहती है।	1	2	3	4
88. कुछ छात्रों को असहयोगी समझा जाता है।	1	2	3	4
89. छात्र कक्षा की सफलता के लिये गम्भीर होते हैं।	1	2	3	4
90. कक्षा में व्यक्तिगत व सामूहिक-कार्यों के लिये व्यवस्था रहती है।	1	2	3	4

	पूर्ण सहमत	असहमत	सहमत	पूर्ण सहमत
91. प्रत्येक छात्र एक दूसरे का नाम जानता है।	1	2	3	4
92. कुछ छात्रों की असफलता की ओर कोई ध्यान नहीं देता है।	1	2	3	4
93. गृह कार्य करने में छात्रों को कठिनाई होती है।	1	2	3	4
94. कक्षा में अस्पष्टता की स्थिति रहती है।	1	2	3	4
95. छात्रों के विचारों में पर्याप्त भिन्नता रहती है।	1	2	3	4

96. प्रत्येक छात्र के विचार स्पष्ट रहते हैं।	1	2	3	4
97. सभी छात्र कक्षा के साथ समान सहयोग करते हैं।	1	2	3	4
98. कुछ छात्रों को अधिक सुविधायें दी जाती हैं।	1	2	3	4
99. सभी छात्र कक्षा उन्नति की सोचते हैं।	1	2	3	4
100. कुछ छात्रों ने कक्षा में छोटे छोटे समूह बना लिये हैं।	1	2	3	4

101. छात्र विषय वस्तु को सरल समझते हैं।	1	2	3	4
102. सभी विषयों की पढ़ाई जल्दी ही समाप्त कर दी जाती है।	1	2	3	4
103. कक्षा की उन्नति की सभी में समान भावना है।	1	2	3	4
104. कक्षा बहुत कठिन कार्य करती है।	1	2	3	4
105. छात्र एक दूसरे को अच्छी नजर से नहीं देखते हैं।	1	2	3	4

Parent Questionnaire: Your Third-Grader

For our study we need to match each child's home support questionnaire with her achievement scores. Then the names will be removed. All information is kept confidential.

Child's name _____ Sex M. F. Age: _____
 First Last

Number of children in the family: _____

Child's birth order (first, second, etc.): _____

For the next group of questions, please circle "YES" or "NO". If you are unsure, circle the answer you feel is most likely true.

Does your child have a library card?	YES	NO
Has school a good experience for you?	YES	NO
Does your child usually bring library books home from school?	YES	NO
Does your child share his or her hurts and joys with you?	YES	NO
Do you have a library card?	YES	NO
Have you been to the library this year?	YES	NO
Does your child feel good about himself/herself?		
Do you call the teacher when you have an important question?	YES	NO
Do you usually remember to speak positively about school to your child?	YES	NO
Do you know your child's best subject in school?	YES	NO
Do you know your child's weaknesses in school?		
Do you have an idea how your child's work compares with work of the classmates?	YES	NO
Do you read in front of your children more than once a week?	YES	NO

Parent Questionnaire: Your Third-Grader
(page 2)

- | | |
|--|-----|
| 14) Does the child usually watch TV without parent there? | YES |
| 15) Do you joke with your child often? | YES |
| 16) Does your child tell you about problems at school? | YES |
| 17) Do you have the following in your home: | |
| A) a dictionary | YES |
| B) a book of maps (Atlas) | YES |
| C) encyclopedias | YES |
| D) newspapers | YES |
| E) children's magazines (Highlights, Black Jr's, etc.) | YES |
| F) colouring books, crayons | YES |
| G) drawing paper (any kind) | YES |
| H) magazines (Span, Famina, Sun. etc.) | YES |
| 18) Do you feel free to visit school when you need to? | YES |
| 19) Do you plan and then go on family outings together? | YES |
| 20) Is your child involved in planning the trips? | YES |
| 21) Would you try to work as a volunteer if the teacher asked you to help? | YES |
| 22) Does your child have regular chore to do? | YES |
| 23) Are you comfortable when visiting school? | YES |
| 24) Have you been to a parent-teacher conference this year? | YES |
| 25) If someone told you something nice about your child, did you remember to pass it on? | YES |
| 26) Do you discuss the future with your child? | YES |
| 27) Do you know what the teacher expects of your child? | YES |
| 28) Is your child able to do the work expected of him or her? | YES |
| 29) Does the child help around the house? | YES |
| 30) Have you visited a museum or zoo with your child this year? | YES |

Parent Questionnaire: Your Third-Grader
(Page 3)

- | | | |
|---|-----|----|
| 31) Do you hope your child will continue his education beyond high school? | YES | NO |
| 32) Is your child in a book club (Scholastic, etc.)? | YES | NO |
| 33) Have you read to your child this past month? | YES | NO |
| 34) Do you expect that your child will continue his education beyond high school? | YES | NO |
| 35) Do you help your child with school work if he or she asks for help? | YES | NO |
| 36) Do you usually remember to praise your child for good school work? | YES | NO |
| 37) Do you have some plans in mind for this child's future? | YES | NO |
| 38) Do you often correct your child's speech (for example, if he/she uses "ain't")? | YES | NO |
| 39) Have you taught your child new words this month (new vocabulary)? | YES | NO |

Please put a check by your answer to the following questions.
Choose the answer that best fits your family or child.

- 1) How much television does your child usually watch each day?

___ 0-2 hrs. ___ 5-6 hrs.
___ 3-4 hrs. ___ 7 or more hrs.

- 2) How many times have you talked to the teacher this year?

___ 1 ___ 3 ___ 5 ___ 7 ___ 9
___ 2 ___ 4 ___ 6 ___ 8 ___ 10 or more times

- 3) What appliances do you let your child use? (Check as many as you may need to)

___ toaster ___ stove ___ blender ___ a knife ___ stereo
___ washer, dryer ___ vacuum ___ TV, radio
___ other _____

Parent Questionnaire: Your Third-Grader
(Page 4)

4) Where do you get most of your information about school activities?

___ from this child	___ other children
___ neighbours	___ notes from school
___ principal	___ school secretary
___ other	___ teacher

5) If you could change 2 things about the school, what would they be?

.....

.....

.....

.....

6) What do you think are the 3 most important things a parent can do for a child?

.....

.....

.....

अभिभावक प्रश्नावली

आपके संरक्षित की शिक्षा-व्यवस्था की जानकारी प्राप्त कर उस में सुधार करने के लिये नीचे आप से कुछ बातें पूछी जा रही हैं। कृपया निडर एवं निस्संकोच भाव से प्रश्नों का उत्तर दें। आपके उत्तर छात्र के शिक्षकों को नहीं दिखाये जायेंगे।

छात्र का नाम : _____ लिंग _____ आयु _____

परिवार में बच्चों की संख्या : _____

परिवार में छात्र का स्थान (पहिला, दूसरा, तीसरा) _____

जिस उत्तर को आप सही समझें उसके ऊपर गोला (○) बना दें।

- | | | |
|--|-----|------|
| १) क्या आपके बालक पर पुस्तकालय-कार्ड हैं ? | हां | नहीं |
| २) क्या आपको विद्यालय पसंद हैं ? | हां | नहीं |
| ३) क्या आपका बच्चा पुस्तकालय से पुस्तकें लेता है ? | हां | नहीं |
| ४) क्या आपका बच्चा अपने दुख सुख आपको बताता है ? | हां | नहीं |
| ५) क्या आप कभी विद्यालय के पुस्तकालय गये हैं ? | हां | नहीं |
| ६) क्या आप प्रति माह विद्यालय जाते हैं ? | हां | नहीं |
| ७) क्या आपके बच्चे को अपने पर विश्वास है ? | हां | नहीं |
| ८) क्या आप बच्चे के अध्यापकों से मिलते रहते हैं ? | हां | नहीं |
| ९) क्या आप बच्चे से विद्यालय की प्रशंसा करते हैं ? | हां | नहीं |
| १०) क्या आप बच्चे के प्रिय विषयों के बारे में जानते हैं ? | हां | नहीं |
| ११) क्या आप विद्यालय में बच्चे को कमजोरियों को जानते हैं ? | हां | नहीं |
| १२) क्या आप जानते हैं कि आपका बच्चा अपने अन्य साथियों की तुलना में कैसा है ? | हां | नहीं |

- १३) क्या आप बच्चे के सामने भी पढ़ते रहते हैं ? हां
- १४) क्या आपका बच्चा आपके साथ रेडियो आदि सुनता है ? हां
- १५) क्या आप अपने बच्चे के साथ दोस्ती का व्यवहार करते हैं ? हां
- १६) क्या आपका बच्चा अपनी समस्याएँ आपको बतलाता है ? हां
- १७) क्या आपके घर में निम्नलिखित चीजें हैं ?

अ. शब्द कोष

हां

आ. एटलस

हां

इ. विश्व कोष

हां

ई. समाचार-पत्र

हां

उ. बाल-पत्रिकाएँ

हां

ऊ. पत्रिकाएँ जैसे धर्मयुग, सरीता, कादम्बरी आदि

हां

- १८) क्या आप विद्यालय प्रायः जाते रहते हैं ? हां
- १९) क्या आप बच्चे के साथ पिकनिक आदि जाते हैं ? हां
- २०) क्या आपका बच्चा आपके साथ मिलकर योजनाएँ बनाता है ? हां
- २१) क्या आप अध्यापक के सुझाव स्वीकार करते हैं ? हां
- २२) क्या आपके बच्चे को नियमित गृह कार्य मिलता है ? हां
- २३) क्या आप विद्यालय के उत्सवों भाग लेते हैं ? हां
- २४) क्या आप निःसंकोच भाव से विद्यालय जाते हैं ? हां
- २५) क्या आप शिक्षक-अभिभावक संघ के कार्यों में सहयोग देते हैं ? हां
- २६) क्या आप बच्चे के सम्बंध में सुनी अच्छी बातें बच्चे को बता देते हैं ? हां
- २७) क्या आप बच्चे के साथ भावी योजनाओं पर विचार-विमर्श करते हैं ? हां
- २८) क्या आप जानते हैं कि अध्यापक आप के बच्चे से क्या चाहते हैं ? हां
- २९) क्या आप का बच्चा विद्यालय कार्य को करने को योग्यता रखता है ? हां
- ३०) क्या बच्चा घर के कार्यों में सहयोग देता है ? हां

क्या आपने इस वर्ष विद्यालय का कोई कार्य किया है ?	हां	नहीं
क्या आप बच्चे के साथ मेले तमाशे में जाते हैं ?	हां	नहीं
क्या आप को उम्मेद है कि आप का बच्चा हाई स्कूल के बाद भी शिक्षा प्राप्त करता रहेगा ?	हां	नहीं
क्या आप का बच्चा एन. सी. सी. बालघर जैसी क्रियाओं में भाग लेता है ?	हां	नहीं
क्या आप अपने बच्चे को घर पर पढ़ाते हैं ?	हां	नहीं
क्या आप का बच्चा उच्च शिक्षा प्राप्त करेगा ?	हां	नहीं
क्या पढ़ाई में आप अपने बच्चे की सहायता करते हैं ?	हां	नहीं
क्या आप अपने बच्चे की प्रशंसा करते हैं ?	हां	नहीं
क्या बच्चे के भविष्य की आप के दिमाग में कोई योजनाएँ हैं ?	हां	नहीं
क्या आप बच्चे की गलतियों को यथा समय सुधार देते हैं ?	हां	नहीं
क्या आप बच्चे को नये नये शब्द सिखाते रहते हैं ?	हां	नहीं

प्रतिदिन आप का बच्चा रेडियो या टो. बी. पर कितना समय देता है ?

— ०-२ घण्टे

— ५-६ घण्टे

— ३-४ घण्टे

— ७ घण्टे से अधिक

बच्चे के अध्यापक से इस वर्ष आप कितनी बार मिल चुके हैं ?

— १ बार

— २ बार

— ३ बार

— ४ बार

— ५ बार

— ६ बार

— ७ बार

— ८ बार

— ९ बार

— १० बार

घर पर आप बच्चे को किन चीजों का प्रयोग करने देते हैं ?

— बिजली की प्रेस

— स्टोव

— छुरी, चाकू

— रेडियो

— टी. बी.

— साईकल

— स्कूटर

— अन्य

४५) आप अपने बच्चे के सम्बन्ध में कहां से सूचनाएँ प्राप्त करते हैं ?

— अपने बच्चे से

— दूसरे बच्चों से

— पड़ोसियों से

— विद्यालय से पत्र द्वारा

— प्रधानाध्यापक से

— अध्यापक से

— अन्य साधनों से

४६) आप विद्यालय में कौन कौन से दो परिवर्तन (सुधार) चाहते हैं ?

४७) आपके विचार से माता पिता को बच्चे की शिक्षा के लिये क्या क्या तीन काम करने चाहिये ?

१.

२.

३.

Student Informationnaire

THIS IS NOT A TEST. Your teacher will not see these papers at all. Different children answer in different ways. The best answers are what you really think. We want to know what children of your age think about certain ideas.

1. At home, once I start a new project I usually
Finish it..... 5..... 4..... 3..... 2..... 1..... Don't Finish it
2. If I try something new, I like it to be mostly
Hard..... 5..... 4..... 3..... 2..... 1..... Easy
3. I am proud of my school work
All the Time..... 5..... 4..... 3..... 2..... 1..... Never
4. At home I usually try new activities
Often..... 5..... 4..... 3..... 2..... 1..... Not often
5. If my teacher needed someone to help with a job, she/He
Might Choose me..... 5..... 4..... 3..... 2..... 1..... Probably would
not choose me
6. I get punished when it is
My fault..... 5..... 4..... 3..... 2..... 1..... Not my fault
7. When I do something well, it is because I
Worked Hard..... 5..... 4..... 3..... 2..... 1..... Was Lucky
8. In reading, if I tried I would do
Well..... 5..... 4..... 3..... 2..... 1..... Not Well
9. If someone gets angry with me, I think of some way to make friends again
Often..... 5..... 4..... 3..... 2..... 1..... Not Often
10. I wish I could change something about how I look, like my height, or my
weight, or my hair, etc.
Often..... 5..... 4..... 3..... 2..... 1..... Not Often
11. In most school subjects, if I tried I would do
Well..... 5..... 4..... 3..... 2..... 1..... Not well
12. My teacher is pleased with the way I behave
All the time..... 5..... 4..... 3..... 2..... 1..... Never
13. When I have a problem at home, I usually feel
Very Upset..... 5..... 4..... 3..... 2..... 1..... A Little Upset

14. When I try to do something I usually
Plan Carefully.....5.....4.....3.....2.....1.....Don't Plan
15. In school my teacher expects
Too much Too Little
from me.....5.....4.....3.....2.....1.....from me
16. Most decisions about me are made by
My Parents.....5.....4.....3.....2.....1.....Me
17. My parents are proud of me
Often.....5.....4.....3.....2.....1.....Not Often
18. If something goes wrong, I usually
Change It.....5.....4.....3.....2.....1.....Live With It
19. When the teacher starts a brand new subject, I usually feel
Excited.....5.....4.....3.....2.....1.....Frightened
20. In math, if I tried I would do
Well.....5.....4.....3.....2.....1.....Not Well
21. At home my parents usually expect
Too much Too little
from me.....5.....4.....3.....2.....1.....from me
22. When I have a hard problem I usually
Keep trying
to solve it.....5.....4.....3.....2.....1.....Give it up
23. With outdoor sports and games, I usually play
Well.....5.....4.....3.....2.....1.....Not Well

Grade :- _____

Girl :- _____ Boy : _____

Name :- _____

Name of the School :- _____

छात्र मतावली

यह कोई परीक्षा नहीं है। इन कागजों को आपके अध्यापकों को नहीं दिखाया जायेगा ; अतः स्वतंत्र एवं निडर रूप से
ते विचार लिखें।

शाला का नाम _____

छात्र का नाम _____

घर पर मैं जो कार्य प्रारम्भ करता हूँ उसे मैं

पूरा करता हूँ5.....4.....3.....2.....1..... पूरा नहीं करता हूँ।

जिस नये कार्य को प्रारम्भ करता हूँ उसे मैं समझता हूँ

कठिन5.....4.....3.....2.....1.....सरल

मुझे विद्यालय में जो कार्य मिलता है उस पर मुझे गर्व होता है

सदैव5.....4.....3.....2.....1.....कभी नहीं

घर पर मैं नये नये कार्य करता हूँ

प्रायः5.....4.....3.....2.....1.....कभी कभी

मेरे अध्यापक कार्य कराने के लिये

मुझे कहते हैं5.....4.....3.....2.....1.....मुझे नहीं कहते हैं

मुझे दण्ड मिलता है जब

मेरी गलती होती है5.....4.....3.....2.....1.....मेरी गलती नहीं होती

मैं जो अच्छा कार्य करता हूँ वह परिणाम होता है मेरे

कठिन कार्य का5.....4.....3.....2.....1.....भाग्य का

यदि मैं प्रयत्न करूँ तो मैं कर सकता हूँ

अच्छा कार्य5.....4.....3.....2.....1.....गंदा कार्य

यदि कोई मुझसे क्रोधित हो जाय तो मैं उसे पुनः दोस्त बनाने की चेष्टा करता हूँ

प्रायः5.....4.....3.....2.....1.....कभी कभी

मैं अपनी चीजें जैसे अपनी लम्बाई, बज्र, बालो का ढंग आदि बदलना चाहता हूँ

सदैव5.....4.....3.....2.....1.....कभी कभी

अधिकांश विषयों में प्रयत्न करने पर मैं अच्छा कर पाता हूँ

प्रायः5.....4.....3.....2.....1.....कभी कभी

मेरे व्यवहार से मेरे अध्यापक प्रसन्न रहते हैं

प्रायः5.....4.....3.....2.....1.....कभी कभी

13. घर से कोई समाचार आने पर मैं परेशान होता हूँ

सदैव5.....4.....3.....2.....1.....कभी कभी

14. कार्य प्रारम्भ करने से पूर्व मैं योजना बना लेता हूँ

प्रायः.....5.....4.....3.....2.....1.....कभी कभी

15. विद्यालय में मेरे अध्यापक मुझसे आशा करते हैं

बहुत अधिक5.....4.....3.....2.....1.....बहुत कम

16. मेरे सम्बन्ध में निर्णय लिये जाते हैं

माता पिता द्वारा5.....4.....3.....2.....1.....मेरे द्वारा

17. मेरे माता पिता मुझ पर गर्व करते हैं

सदैव5.....4.....3.....2.....1.....कभी कभी

18. गलत कार्य होने पर मैं उसे बदल देता हूँ

सदैव5.....4.....3.....2.....1.....कभी कभी

19. अध्यापक द्वारा नया अध्याय प्रारम्भ करने पर मुझे होती है

खुशी5.....4.....3.....2.....1.....भय

20. गणित में, प्रयत्न करने पर मैं ठीक कर पाता हूँ

सदैव5.....4.....3.....2.....1.....कभी कभी

21. घर पर मेरे माता पिता मुझसे आशा करते हैं

बहुत अधिक5.....4.....3.....2.....1.....बहुत कम

22. कठिन समस्या आने पर मैं उनमें

लगा रहता हूँ5.....4.....3.....2.....1.....छोड़ देता हूँ

23. खेल कूदों में खेलता हूँ

बहुत अच्छा5.....4.....3.....2.....1.....अच्छा नहीं

1911

1911

1911

1911

H. P. SCHOOLS
(with their work only for H. P. Schools)

1. Sophia Hr. Sec. School, Ajmer (253.84)
2. St. Angela's Sophia Hr. Sec. School, Jaipur (313.74)
3. St. Mary's Convent Girls Hr. Sec. School, Udaipur (200.00)
4. St. Joseph's Convent Girls Hr. Sec. School, Pilani (224.08)
5. St. Mary's Convent Girls Hr. Sec. School, Ajmer (280.32)
6. Sophia Girls Hr. Sec. School, Kota (275.01)
7. St. Paul's Hr. Sec. School, Jaipur (275.00)
8. St. Paul's Hr. Sec. School, Bikaner (213.25)
9. St. Paul's Hr. Sec. School, Ajmer (267.20)
10. Mohanlal Hr. Sec. School, Jaipur (212.54)
11. Adarsh Vidya Mandir Hr. Sec. School, Jaipur (222.74)
12. Govt. Girls Hr. Sec. School, Bikaner (224.33)
13. Sophia Girls Hr. Sec. School, Bikaner (222.75)
14. St. Joseph's Hr. Sec. School, Jaipur (225.00)
15. Hospitala Arya Hr. Sec. School, Shri Ganganagar (211.86)

CENTRAL SCHOOLS

1. Central School, Jaipur
2. Central School, Jaipur
3. Central School Bikaner
4. Central School Kota
5. Central School Udaipur
6. Central School, Ajmer
7. Central School, Khetri

H. P. SCHOOLS

1. Mayo College, Ajmer
2. Sree Public School, Bikaner.

H. P. SCHOOLS

1. Govt. Hr. Sec. School, Malanpur (0.00)
2. Post Radio Hr. Sec. School, Jaisalmer (25.75)
3. Government Vidyapeeth, Bikaner (25.75)
4. Govt. Hr. Sec. School, Phalgaon (27.27)
5. Govt. Girls Hr. Sec. School, Pratapgarh (25.57)
6. Govt. Hr. Sec. School, Bhadla (25.00)
7. Bhartiya Vidya Mandir Bikaner (25.00)
8. Govt. Hr. Sec. School, Sadi Chaur (25.00)
9. Govt. Hr. Sec. School, Ganganagar (25.00)
10. Govt. Hr. Sec. School, Chhatrapati (25.71)
11. Govt. Hr. Sec. School, Shri Kanganagar (25.25)
12. Govt. Hr. Sec. School, Bikaner (25.54)
13. Govt. Hr. Sec. School, Bikaner (25.14)
14. Govt. Hr. Sec. School, Bikaner (25.25)
15. Shri Ramchand Ganga Hr. Sec. School, Bikaner (25.71)

DATA FROM SANTAL PUNJAB SCHOOL COULD NOT BE COLLECTED

ATTENTION

EXAMPLE OF THE PROBLEM ADPT 3 R 1 THE
CALCULATION OF ACHAL TACHING
THE LA THE SOLIC

*

**DETAILED ANALYSIS OF THE RECORDS FOR CALCULATING
ACTUAL TEACHING TIME FOR ONE U.P. AND ONE MIDDLE SCHOOL**

1. U.P. School

Prayer bell	7.30
Attendance Bell	7.45
1st Period Bell	8.00
Teacher reaches	8.04
Starts teaching	8.06
Teaches upto	8.28
Asks to keep	
discipline	8.33
Starts teaching	8.34
stops teaching	8.36
Period over	8.38

2nd Period starts at	8.38
Teacher reaches	8.39
Starts teaching	8.41
Notice from the	
Principal	8.51
Starts teaching	8.54
Stops teaching	9.02
Period over	9.02
3rd Period starts	9.02
Teacher comes	9.13
Some discussion with	
nts upto	9.21
Starts teaching	9.22
Teaches upto	9.42

2. Bottom School

Prayer bell at	9.00
Attendance	9.00
1st Period starts	9.15
Teacher comes	9.21
Talks (No teaching)	9.25
Teaches	9.30
Talks	9.40
Teaches	9.45
Period over	9.50
2nd Period starts	9.50
Teacher comes	9.55
No teaching upto	10.10
Teaching Starts and	
goes upto	11.30
Leaves the class	11.45
3rd Period starts	11.45
Teacher comes	11.50
Gives class work to do	
no school teaching at all	
upto the end of the period	